

Panasonic
ideas for life

2009

**Discrete Semiconductors
Selection Guide**



Request for your special attention and precautions in using the technical information and semiconductors described in this book

- (1) If any of the products or technical information described in this book is to be exported or provided to non-residents, the laws and regulations of the exporting country, especially, those with regard to security export control, must be observed.
- (2) The technical information described in this book is intended only to show the main characteristics and application circuit examples of the products. No license is granted in and to any intellectual property right or other right owned by Panasonic Corporation or any other company. Therefore, no responsibility is assumed by our company as to the infringement upon any such right owned by any other company which may arise as a result of the use of technical information described in this book.
- (3) The products described in this book are intended to be used for standard applications or general electronic equipment (such as office equipment, communications equipment, measuring instruments and household appliances).
Consult our sales staff in advance for information on the following applications:
 - Special applications (such as for airplanes, aerospace, automobiles, traffic control equipment, combustion equipment, life support systems and safety devices) in which exceptional quality and reliability are required, or if the failure or malfunction of the products may directly jeopardize life or harm the human body.
 - Any applications other than the standard applications intended.
- (4) The products and product specifications described in this book are subject to change without notice for modification and/or improvement. At the final stage of your design, purchasing, or use of the products, therefore, ask for the most up-to-date Product Standards in advance to make sure that the latest specifications satisfy your requirements.
- (5) When designing your equipment, comply with the range of absolute maximum rating and the guaranteed operating conditions (operating power supply voltage and operating environment etc.). Especially, please be careful not to exceed the range of absolute maximum rating on the transient state, such as power-on, power-off and mode-switching. Otherwise, we will not be liable for any defect which may arise later in your equipment.
Even when the products are used within the guaranteed values, take into the consideration of incidence of break down and failure mode, possible to occur to semiconductor products. Measures on the systems such as redundant design, arresting the spread of fire or preventing glitch are recommended in order to prevent physical injury, fire, social damages, for example, by using the products.
- (6) Comply with the instructions for use in order to prevent breakdown and characteristics change due to external factors (ESD, EOS, thermal stress and mechanical stress) at the time of handling, mounting or at customer's process. When using products for which damp-proof packing is required, satisfy the conditions, such as shelf life and the elapsed time since first opening the packages.
- (7) This book may be not reprinted or reproduced whether wholly or partially, without the prior written permission of our company.

20080805

If you have any inquiries or questions about this book or our semiconductor products, please contact one of our sales offices listed on the back or our sales division.

How to Read This Document

Structure of this document

This document consists of the part number list, application block diagrams, recommended types by classification, package outlines, discontinued types, planned discontinued types, maintenance types, and planned maintenance types. Types are classified according to the ECALS glossary.

ECALS is the general term for all standardization activities, including the distribution of composite components technology information (offering of and searching for information via the internet) about electronic equipment, semiconductors, electronic components, etc. as well as support administration such as the ECALS glossary, etc.

Part numbers

The part numbers used in this document are part numbers for catalog use, and are partially abbreviated Global part number. Numbers indicating ranks, packing specifications, etc. are not listed. Conventional part numbers (C Part No.) are part numbers used prior to the operation of the Global part number in 2000, and are listed only for those part numbers which are drastically different from the Global part number. They may also be listed in parentheses together with the part number.

Package outlines (package)

Recommended products listed in this document are lead-free packages.

Discontinued types, planned discontinued types, maintenance types, and planned maintenance types

We offer a variety of product information at the following URL:

http://panasonic.net/sc/en/common_info

- Discontinued Types : These types have been discontinued and no further handling can be performed.
- Planned Discontinued Types : These types are scheduled to be discontinued.
Customers who have used these types in the past are hereby notified that sales of these types have ended.
- Maintenance Types : Because sales of these types are planned to be discontinued, new sales of such types are not possible. Further, existing customers with new applications should switch to replacement types.
- Planned Maintenance Types : These types are scheduled to become maintenance types.
For new applications, please refrain from using these types.

Symbols used for recommended types

- : Under planning
- ▲: Under development
- △: Microcomputers, application-specific standard-product ICs: ES available types; Discrete components, opto electronic devices: Tentative standard
- ★: Newly listed in this document

Homepage Introduction

We offer a variety of product information on Panasonic semiconductor products.

<http://panasonic.net/sc/en>

Catalog List

Our company's lineup of catalogs is listed below. Please select the catalog according to your purpose.

Common Catalog

- Semiconductor Selection Guide
- Semiconductor Package
- Lead-free Package

Product Catalog

Microcomputers

- Microcomputer Family AM Series
- Microcomputer AM Series Selection Guide

Image Pickup Devices

- CCD Image Sensor

Application-Specific Standard-Product ICs

- Panasonic Integrated Platform for Digital Appliances Uniphier
- 3D Sound Reproduction Technology Solutions
- IPD for Switching Power Supply Solution Guide

Gallium Arsenide Devices

- GaAs Device for W-LAN Solution Guide

General Purpose Discrete

- MOS FET
- Discrete Semiconductors Selection Guide

Opto Electronic Devices

- Laser / Hologram Unit for Optical Disk
- Surface Mount Chip LEDs

Solution Catalog

- Network Camera Solution
- Digital Television Solution

* If you would like a printed catalog, please request one at the following URL. Catalog PDFs are available on our company's homepage.

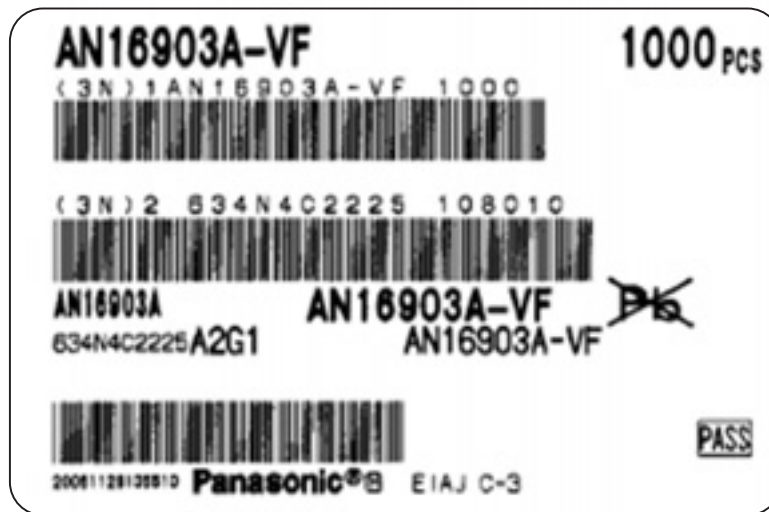
URL: <https://www.semicon.panasonic.co.jp/semi-spt/general/?lang=en&>

Note: The above catalog lineup is subject to change without notice. Please check for the latest status on our company's homepage.

Precautions on label indication of lead-free products (RoHS compliance)

To conform to RoHS Directive restrictions, the products supplied by our company will be marked in the following two ways on C3 labels on each package unit.

1. On the lead-free label, the “Pb” letter are crossed out with × marking.
(For compliance with RoHS Directive 2002/95/EC)
2. Date of manufacture will be indicated by the first 8 digits of the 14-digit number at the bottommost left.
(For compliance with China RoHS)



Example of Label Indication

Please pay attention to the relevant marking and manage products properly to avoid mixing lead-containing products with lead-free products. Note that C3 labels are attached to outer boxes, inner boxes, reels, etc.; please check packaging before opening.

If you have any inquiries or questions about this matter, please contact one of our sales representatives.

Part Number List	A
Application Block Diagrams	B
Microcomputers	C
Image Pickup Devices	D
Application-Specific Standard-Product ICs	E
Sensors	F
Gallium Arsenide Devices	G
Transistors	H
Multi Chip Discrete Devices	J
Diodes	K
Voltage Detector / Fuses (Circuit Protector Elements)	L
Package Information	M
Package Outlines/Reference Dimension of Soldering pad	N
Maintenance/Discontinued Product List	P

Part Number List

Part Number List

	Part No.	C Part No.	Package	Page	Part No.	C Part No.	Package	Page
I: I-G1/I-A1								
Mini 2P: Mini2-F1/Mini2-G1					2SB0710A	2SB710A	Mini 3P	H9
Mini 3P: Mini3-G1					2SB0766G		Mini Power 3P	H23
Mini 4P: Mini4-G1/Mini4-G2					2SB0767G		Mini Power 3P	H23
Mini 5P: Mini5-G1					2SB0789G		Mini Power 3P	H24
Mini 6P: Mini6-G1/Mini6-G2					2SB0792A	2SB792A	Mini 3P	H9
Mini Power 3P: MiniP3-F2					2SB0873	2SB873	TO92L	H23
N: N-G1/N-A1					2SB0928	2SB928	N	H25
NS: NS-A1/NS-B1					2SB0928A	2SB928A	N	H25
SMini 2P: SMini2-F1/SMini2-F2/SMini2-G1					2SB0930	2SB930	N	H25
SMini 3P: SMini3-F1/SMini3-G1	*				2SB0930A	2SB930A	N	H25
SMini 4P: SMini4-F1/SMini4-G1					2SB0931	2SB931	N	H25
SMini 5P: SMini5-F1/SMini5-G1					2SB0933	2SB933	N	H25
SMini 6P: SMini6-F1/SMini6-G1					2SB0934	2SB934	N	H25
SNMP 2P: SNMiniP2					2SB0936	2SB936	N	H25
SSMini 2P: SSMini2-F1/SSMini2-F2/SSMini2-F4					2SB0936A	2SB936A	N	H25
SSMini 3P: SSMini3-F1/SSMini3-F2/SSMini3-F3					2SB0937	2SB937	N	H25
SSMini 4P: SSMini4-F1					2SB0937A	2SB937A	N	H25
SSMini 5P: SSMini5-F1/SSMini5-F2/SSMini5-F3					2SB0938	2SB938	N	H25
SSMini 6P: SSMini6-F1/SSMini6-F2					2SB0938A	2SB938A	N	H25
SSSMini 2P: SSSMini2-F1/SSSMini2-F3					2SB0939	2SB939	N	H25
SSSMini 3P: SSSMini3-F1/SSSMini3-F2					2SB0939A	2SB939A	N	H25
SSSMini 6P: SSSMini6-F1					2SB0942	2SB942	TO220F	H25
T Mini Power 2P: TMiniP2-F1					2SB0942A	2SB942A	TO220F	H25
TO126: TO-126B-A1					2SB0944	2SB944	TO220F	H25
TO220C: TO-220C-G1					2SB0945	2SB945	TO220F	H25
TO220D 2P: TO-220D-B1					2SB0946	2SB946	TO220F	H25
TO220D: TO-220D-A1					2SB0948	2SB948	TO220F	H25
TO220F: TO-220F-A1					2SB0948A	2SB948A	TO220F	H25
TO92 2P: TO-92-C1					2SB0951	2SB951	TO220F	H25
TO92: TO-92-A1/TO-92-B1					2SB0951A	2SB951A	TO220F	H25
TO92L: TO-92L-A1					2SB0956G		Mini Power 3P	H23
TO92NL: TO-92NL-A1					2SB0968	2SB968	U	H22
TOP3F: TOP-3F-A1/TOP-3F-B1					2SB0970	2SB970	Mini 3P	H9
U: U-G2/U-A1					2SB1011		TO126	H22
WMini 8P: WMini8-F1					2SB1030A		NS	H9
WSMini 6P: WSMini6-F1					2SB1073G		Mini Power 3P	H23
WSSMini 6P: WSSMini6-F1					2SB1148		I	H26
					2SB1148A		I	H26
					2SB1169		I	H26
					2SB1169A		I	H26
					2SB1172		I	H26
					2SB1172A		I	H26
					2SB1174		I	H26
					2SB1175		I	H26
					2SB1176		I	H26
					2SB1179		I	H26
					2SB1179A		I	H26
					2SB1193		TO220F	H25
					2SB1218A		SMini 3P	H8
					2SB1218G		SMini 3P	H8
					2SB1219A		SMini 3P	H8
					2SB1219G		SMini 3P	H8
					2SB1220		SMini 3P	H8
					2SB1220G		SMini 3P	H8
					2SB1221		TO92NL	H24
					2SB1299		TO220F	H25
					2SB1320A		MT-1-A1	H9
					2SB1321A		MT-1-A1	H9
					2SB1322A		MT-2-A1	H23
					2SB1416		MT-3-A1	H22
					2SB1417A		MT-4-A1	H26
					2SB1418		MT-4-A1	H26
					2SB1418A		MT-4-A1	H26
					2SB1434		MT-2-A1	H23
					2SB1435		MT-3-A1	H22
					2SB1440G		Mini Power 3P	H23
					2SB1462G		SSMini 3P	H8
					2SB1462J		SSMini 3P	H8

*: Newly listed in this document △: Tentative

Part Number List

A

Part No.	C Part No.	Package	Page	Part No.	C Part No.	Package	Page	Part No.	C Part No.	Package	Page
2SB1463G		SSMini 3P	H8	2SC4391		MT-2-A1	H23	2SD1149		Mini 3P	H9
2SB1463J		SSMini 3P	H8	2SC4410G		SMini 3P	H10	2SD1249		N	H25
2SB1548A		TO220D	H25	2SC4420		TOP3F	H27	2SD1249A		N	H25
2SB1574		U	H22	2SC4559		TO220F	H27	2SD1250		N	H25
2SB1592		TO92NL	H23	2SC4562G		SMini 3P	H10	2SD1250A		N	H25
2SB1593		MT-3-A1	H22	2SC4626G		SSMini 3P	H10	2SD1253		N	H25
2SB1599G		Mini Power 3P	H23	2SC4626J		SSMini 3P	H10	2SD1253A		N	H25
2SB1623		TO220D	H25	2SC4627G		SSMini 3P	H10	2SD1257		N	H25
2SB1623A		TO220D	H25	2SC4627J		SSMini 3P	H10	2SD1257A		N	H25
2SB1679		SMini 3P	H8	2SC4655G		SSMini 3P	H10	2SD1258		N	H25
2SB1679G		SMini 3P	H8	2SC4656G		SSMini 3P	H10	2SD1259		N	H25
2SB1722J		SSMini 3P	H8	2SC4691G		SSMini 3P	H10	2SD1260		N	H25
2SB1722G		SSSMini 3P	H8	2SC4691J		SSMini 3P	H10	2SD1260A		N	H25
2SB1724		TO220D	H25	2SC4805		SMini 3P	H10	2SD1261		N	H25
2SB1724A		TO220D	H25	2SC4805G		SMini 3P	H10	2SD1261A		N	H25
△ 2SB1734		Mini 3P	H9	2SC4808G		SSMini 3P	H10	2SD1262		N	H25
2SC1318		TO92	H9	2SC4809G		SSMini 3P	H10	2SD1262A		N	H25
2SC1318A		TO92	H9	2SC4809J		SSMini 3P	H10	2SD1263		TO220F	H25
2SC1384		TO92L	H23	2SC4835		SMini 3P	H10	2SD1263A		TO220F	H25
2SC1473		TO92	H9	2SC4835G		SMini 3P	H10	2SD1267		TO220F	H25
2SC1473A		TO92	H9	2SC4953		TO220D	H27	2SD1267A		TO220F	H25
2SC1509		TO92L	H23	2SC5026G		Mini Power 3P	H23	2SD1269		TO220F	H25
2SC1567		TO126	H22	2SC5104		N	H27	2SD1271		TO220F	H25
2SC1567A		TO126	H22	2SC5295G		SSMini 3P	H10	2SD1271A		TO220F	H25
2SC1568		TO126	H22	2SC5295J		SSMini 3P	H10	2SD1272		TO220F	H25
2SC1573		TO92L	H24	2SC5419		MT-2-A1	H24	2SD1275		TO220F	H25
2SC1573A		TO92L	H24	2SC5609G	*	SSSMini 3P	H8	2SD1275A		TO220F	H25
2SC1573B		TO92L	H24	2SC5632G		SMini 3P	H10	2SD1277		TO220F	H25
2SC1846		TO126	H22	2SC5654		SMini 3P	H8	2SD1277A		TO220F	H25
2SC2258		TO126	H22	2SC5654G		SMini 3P	H8	2SD1280G		Mini Power 3P	H23
2SC2295		Mini 3P	H10	2SC5739		TO220D	H25	2SD1302		TO92	H9
2SC2404		Mini 3P	H10	2SC5779		TO220D	H25	2SD1328		Mini 3P	H9
2SC2406		Mini 3P	H9	2SC5788		MT-4-A1	H26	2SD1423A		NS	H9
2SC2480		Mini 3P	H10	2SC5829		ML3-N2	H10	2SD1450		NS	H9
2SC2631		TO92	H9	2SC5845		Mini 3P	H9	2SD1474		TO220F	H25
2SC2634		TO92	H9	2SC5846		SSSMini 3P	H8	2SD1478A		Mini 3P	H9
2SC3063		TO126	H22	2SC5846G		SSSMini 3P	H8	2SD1485		TOP3F	H26
2SC3130		Mini 3P	H10	2SC5848		ML3-N2	H8	2SD1499		TO220F	H25
2SC3311A		NS	H9	2SC5863		Mini 3P	H9	2SD1511G		Mini Power 3P	H23
2SC3312		NS	H9	2SC5935		TO220D	H25	2SD1535		TO220F	H25
2SC3507		TOP3F	H27	2SC5939		SSSMini 3P	H10	2SD1611		N	H25
2SC3743		TO220F	H27	2SC5939G		SSSMini 3P	H10	2SD1633		TO220F	H25
2SC3757		Mini 3P	H10	2SC5946		SSSMini 3P	H10	2SD1640		TO126	H22
2SC3929A		SMini 3P	H8	2SC5946G		SSSMini 3P	H10	2SD1705		TOP3F	H26
2SC3930		SMini 3P	H10	2SC5950		SMini 3P	H8	2SD1719		N	H25
2SC3930G		SMini 3P	H10	2SC5950G		SMini 3P	H8	2SD1741		I	H26
2SC3931		SMini 3P	H10	2SC5993		TO220D	H25,H27	2SD1741A		I	H26
2SC3931G		SMini 3P	H10	2SC6036		SSSMini 3P	H8	2SD1742		I	H26
2SC3932		SMini 3P	H10	2SC6036G		SSSMini 3P	H8	2SD1742A		I	H26
2SC3932G		SMini 3P	H10	2SC6037G		SSMini 3P	H8	2SD1745		I	H26
2SC3934		SMini 3P	H10	2SC6037J		SSMini 3P	H8	2SD1747		I	H26
2SC3934G		SMini 3P	H10	2SC6045G		SSSMini 3P	H10	2SD1747A		I	H26
2SC3935		SMini 3P	H10	2SC6050		ML3-N2	H10	2SD1749		I	H26
2SC3935G		SMini 3P	H10	2SC6054G		SSMini 3P	H8	2SD1749A		I	H26
2SC3936G		SMini 3P	H10	2SC6054J		SSMini 3P	H8	2SD1750		I	H26
2SC3937G		SMini 3P	H10	2SD0592	2SD592	TO92	H9	2SD1750A		I	H26
2SC3938		SMini 3P	H10	2SD0592A	2SD592A	TO92	H9	2SD1754		I	H26
2SC3938G		SMini 3P	H10	2SD0601A	2SD601A	Mini 3P	H9	2SD1754A		I	H26
2SC3939		TO92NL	H23	2SD0602A	2SD602A	Mini 3P	H9	2SD1755		I	H26
2SC3940		TO92NL	H23	2SD0814A	2SD814A	Mini 3P	H9	2SD1819A		SMini 3P	H8
2SC3940A		TO92NL	H23	2SD0874G		Mini Power 3P	H23	2SD1819G		SMini 3P	H8
2SC3941		TO92NL	H24	2SD0875G		Mini Power 3P	H23	2SD1820A		SMini 3P	H8
2SC3979		TO220F	H27	2SD0946A	2SD946A	TO126	H22	2SD1820G		SMini 3P	H8
2SC3979A		TO220F	H27	2SD0946B	2SD946B	TO126	H22	2SD1821A		SMini 3P	H8
2SC4208		TO92NL	H23	2SD0965	2SD965	TO92	H9	2SD1821G		SMini 3P	H8
2SC4208A		TO92NL	H23	2SD0968G		Mini Power 3P	H24	2SD1823		SMini 3P	H8
2SC4212		TO126	H22	2SD1030		Mini 3P	H9	2SD1823G		SMini 3P	H8
2SC4359		TOP3F	H27	2SD1119G		Mini Power 3P	H23	2SD1824		SMini 3P	H8

*: Newly listed in this document △: Tentative

Part Number List

Part No.	C Part No.	Package	Page	Part No.	C Part No.	Package	Page	Part No.	C Part No.	Package	Page
2SD1824G		SMini 3P	H8	2SK0662	2SK662	SMini 3P	H5	MSG43003		ML3-N2	H11
2SD1938F		Mini 3P	H9	2SK0662G		SMini 3P	H5	MSG43004		ML3-N2	H11
2SD1979		SMini 3P	H8	2SK0663	2SK663	SMini 3P	H5	MSG430C4		ML3-N2	H11
2SD1979G		SMini 3P	H8	2SK0663G		SMini 3P	H5	MSG430D4		ML3-N2	H11
2SD1991A		MT-1-A1	H9	2SK0664	2SK664	SMini 3P	H3	MSG56BBA		ML6-N6	H11
2SD1992A		MT-1-A1	H9	2SK0664G		SMini 3P	H3	MSG56BBB		ML6-N6	H11
2SD1993		MT-1-A1	H9	2SK0665	2SK665	SMini 3P	H3	MTM68410		WMini 8P	H7
2SD1994A		MT-2-A1	H23	2SK0665G		SMini 3P	H3	MTM68411		WMini 8P	H7
2SD1995		MT-1-A1	H9	2SK1228		Mini 3P	H3	△ MTM68423		WMini 8P	H7
2SD1996		MT-1-A1	H9	2SK1374		SMini 3P	H3	MTM76110		WSMini 6P	H3
2SD2000		TO220F	H25	2SK1374G		SMini 3P	H3	△ MTM76111		WSMini 6P	H3
2SD2067		MT-2-A1	H23	2SK2211G		Mini Power 3P	H3	MTM76123		WSMini 6P	H3
2SD2133		MT-3-A1	H22	2SK2339		N	H28	MTM76320		WSMini 6P	H7
2SD2136		MT-3-A1	H22	2SK2593G		SSMini 3P	H4	△ MTM76321		WSMini 6P	H7
2SD2137A		MT-4-A1	H26	2SK2593J		SSMini 3P	H4	MTM76420		WSMini 6P	H6
2SD2138		MT-4-A1	H26	2SK2751		Mini 3P	H5	△ MTM76520		WSMini 6P	H7
2SD2139		MT-4-A1	H26	2SK3022		U	H28	MTM76720		WSMini 6P	H6
2SD2151		TO220F	H25	2SK3024		U	H28	MTM86124		WSSMini 6P	H2
2SD2177		MT-2-A1	H23	2SK3043		TO220D	H28	MTM86127		WSSMini 6P	H2
2SD2177A		MT-2-A1	H23	2SK3045		TO220D	H28	△ MTM86128		WSSMini 6P	H2
2SD2178		MT-3-A1	H22	2SK3047		TO220D	H28	MTM86227		WSSMini 6P	H2
2SD2179		MT-2-A1	H23	2SK3048		TO220D	H28	MTM86627		WSSMini 6P	H6
2SD2185G		Mini Power 3P	H23	2SK3064		SMini 3P	H3	△ MTM86627A		WSSMini 6P	H6
2SD2210G		Mini Power 3P	H23	2SK3064G		SMini 3P	H3	MTM86727		WSSMini 6P	H6
2SD2216G		SSMini 3P	H8	2SK3269		TO220C	H28	MTM98140		SO8-F1	H3
2SD2216J		SSMini 3P	H8	2SK3372		SSSMini 3P	H4	△ MTM98240		SO8-F1	H3
2SD2220		MT-3-A1	H22	2SK3372G		SSSMini 3P	H4	MTMC8E28		WMini 8P	H7
2SD2225		MT-2-A1	H24	2SK3426		SSSMini 3P	H4	MTMC8E2A		WMini 8P	H7
2SD2240G		SSMini 3P	H8	2SK3426G		SSSMini 3P	H4	MTMF8231		SO8-F1	H3
2SD2240J		SSMini 3P	H8	2SK3539		SMini 3P	H3	★ △ MTMF8233		SO8-F1	H3
2SD2258		MT-2-A1	H23	2SK3539G		SMini 3P	H3	NP041A0		SSSMini 6P	H19
2SD2259		MT-2-A1	H23	2SK3546G		SSMini 3P	H3	NP041A1		SSSMini 6P	H19
2SD2345G		SSMini 3P	H8	2SK3546J		SSMini 3P	H3	NP041A2		SSSMini 6P	H19
2SD2345J		SSMini 3P	H8	2SK3547		SSSMini 3P	H3	NP041A3		SSSMini 6P	H19
2SD2358		MT-2-A1	H23	2SK3547G		SSSMini 3P	H3	NP041A4		SSSMini 6P	H19
2SD2374A		TO220D	H25	★ 2SK3585G		SSSMini 3P	H4	NP041A5		SSSMini 6P	H19
2SD2375		TO220D	H25	2SK3862		TSSMini 3P	H4	NP041A6		SSSMini 6P	H19
2SD2413G		Mini Power 3P	H24	2SK3862G		TSSMini 3P	H4	NP041A7		SSSMini 6P	H19
2SD2420		TO220D	H25	2SK3866		TSSMini 3P	H4	NP042A0		SSSMini 6P	H18
2SD2420A		TO220D	H25	2SK3866G		TSSMini 3P	H4	NP042A1		SSSMini 6P	H18
2SD2453		U	H22	2SK3938		SSSMini 3P	H3	NP042A2		SSSMini 6P	H18
2SD2457G		Mini Power 3P	H23	2SK3938G		SSSMini 3P	H3	NP042A3		SSSMini 6P	H18
2SD2459G		Mini Power 3P	H23	2SK3939		ML3-N2	H2	NP042A4		SSSMini 6P	H18
2SD2479		MT-3-A1	H22	2SK3948		TSSMini 3P	H4	NP042A5		SSSMini 6P	H18
2SD2528		TO220D	H25	2SK3948G		TSSMini 3P	H4	NP042A6		SSSMini 6P	H18
2SD2565		MT-2-A1	H24	2SK3973		SSSMini 3P	H3	NP042A7		SSSMini 6P	H18
2SD2573		MT-3-A1	H22	2SK3973G		SSSMini 3P	H3	NP04390		SSSMini 6P	H21
2SD2598		MT-2-A1	H23	2SK3995		TO220C	H28	NP043A1		SSSMini 6P	H20
2SD2620G		SSMini 3P	H8	2SK4083		TSSMini 3P	H4	NP043A2		SSSMini 6P	H20
2SD2620J		SSMini 3P	H8	2SK4083G		TSSMini 3P	H4	NP043A3		SSSMini 6P	H20
2SD2621		SSSMini 3P	H8	★ 2SK4174		TO220D	H28	NP043A4		SSSMini 6P	H20
2SD2621G		SSSMini 3P	H8	2SK4206		TSSMini 3P	H4	NP043A5		SSSMini 6P	H20
2SD2623		SMini 3P	H8	2SK4206G		TSSMini 3P	H4	NP043A6		SSSMini 6P	H20
2SD2623G		SMini 3P	H8	★ 2SK4208		TO220D	H28	NP043AN		SSSMini 6P	H20
2SD2693		TO220D	H25	MSG33001		SSSMini 3P	H11	NP04401		SSSMini 6P	H13
2SD2693A		TO220D	H25	MSG33002		SSSMini 3P	H11	NP04501		SSSMini 6P	H12
2SD2714		Mini 3P	H9	MSG33003		SSSMini 3P	H11	NP04601		SSSMini 6P	H13
2SJ0163	2SJ163	Mini 3P	H5	MSG33004		SSSMini 3P	H11	NP061A1		SSSMini 6P	H19
2SJ0164		NS	H5	MSG330C4		SSSMini 3P	H11	NP061A2		SSSMini 6P	H19
2SJ0364	2SJ364	SMini 3P	H5	MSG330D4		SSSMini 3P	H11	NP061A3		SSSMini 6P	H19
2SJ0364G		SMini 3P	H5	MSG36C42		SSSMini 6P	H11	NP061A5		SSSMini 6P	H19
2SJ0536		SMini 3P	H3	MSG36D42		SSSMini 6P	H11	NP061AM		SSSMini 6P	H19
2SJ0536G		SMini 3P	H3	MSG36E11		SSSMini 6P	H11	NP061AN		SSSMini 6P	H19
2SJ0582		U	H28	MSG36E31		SSSMini 6P	H11	NP062A0		SSSMini 6P	H18
2SJ0674		SSSMini 3P	H3	MSG36E33		SSSMini 6P	H11	NP062A1		SSSMini 6P	H18
2SJ0674G		SSSMini 3P	H3	MSG36E41		SSSMini 6P	H11	NP062A3		SSSMini 6P	H18
2SK0198	2SK198	Mini 3P	H5	MSG43001		ML3-N2	H11	NP062AM		SSSMini 6P	H18
2SK0601G		Mini Power 3P	H3	MSG43002		ML3-N2	H11	NP062AN		SSSMini 6P	H18

★: Newly listed in this document △: Tentative

Part Number List

A

Part No.	C Part No.	Package	Page	Part No.	C Part No.	Package	Page	Part No.	C Part No.	Package	Page
NP063D3		SSSMini 6P	H21	UNR31A0		SSSMini 3P	H14	UNR32AN		SSSMini 3P	H14
NP0A456		SSSMini 6P	H13	UNR31A0G		SSSMini 3P	H14	UNR32ANG		SSSMini 3P	H14
NP0A501		SSSMini 6P	H12	UNR31A1		SSSMini 3P	H14	UNR32AT		SSSMini 3P	H14
NP0G1AE		SSSMini 6P	H19	UNR31A1G		SSSMini 3P	H14	UNR32ATG		SSSMini 3P	H14
NP0G3A0		SSSMini 6P	H20	UNR31A2		SSSMini 3P	H14	UNR32AV		SSSMini 3P	H14
NP0G3A3		SSSMini 6P	H20	UNR31A2G		SSSMini 3P	H14	UNR32AVG		SSSMini 3P	H14
NP0G3A5		SSSMini 6P	H20	UNR31A3		SSSMini 3P	H14	UNR4110	UN4110	NS	H17
NP0G3D1		SSSMini 6P	H21	UNR31A3G		SSSMini 3P	H14	UNR4111	UN4111	NS	H17
NP0G3D2		SSSMini 6P	H21	UNR31A4		SSSMini 3P	H14	UNR4112	UN4112	NS	H17
NP0G3D3		SSSMini 6P	H21	UNR31A4G		SSSMini 3P	H14	UNR4113	UN4113	NS	H17
NP0H3A3		SSSMini 6P	H20	UNR31A5		SSSMini 3P	H14	UNR4114	UN4114	NS	H17
NP0J1A3		SSSMini 6P	H19	UNR31A5G		SSSMini 3P	H14	UNR4115	UN4115	NS	H17
UNR2110	UN2110	Mini 3P	H17	UNR31A6		SSSMini 3P	H14	UNR4116	UN4116	NS	H17
UNR2111	UN2111	Mini 3P	H17	UNR31A6G		SSSMini 3P	H14	UNR4117	UN4117	NS	H17
UNR2112	UN2112	Mini 3P	H17	UNR31A7		SSSMini 3P	H14	UNR4118	UN4118	NS	H17
UNR2113	UN2113	Mini 3P	H17	UNR31A7G		SSSMini 3P	H14	UNR4119	UN4119	NS	H17
UNR2114	UN2114	Mini 3P	H17	UNR31A8		SSSMini 3P	H14	UNR411D	UN411D	NS	H17
UNR2115	UN2115	Mini 3P	H17	UNR31A8G		SSSMini 3P	H14	UNR411E	UN411E	NS	H17
UNR2116	UN2116	Mini 3P	H17	UNR31A9		SSSMini 3P	H14	UNR411F	UN411F	NS	H17
UNR2117	UN2117	Mini 3P	H17	UNR31A9G		SSSMini 3P	H14	UNR411H	UN411H	NS	H17
UNR2118	UN2118	Mini 3P	H17	UNR31AA		SSSMini 3P	H14	UNR411L	UN411L	NS	H17
UNR2119	UN2119	Mini 3P	H17	UNR31AAG		SSSMini 3P	H14	UNR411M		NS	H17
UNR211D	UN211D	Mini 3P	H17	UNR31AE		SSSMini 3P	H14	UNR411N		NS	H17
UNR211E	UN211E	Mini 3P	H17	UNR31AEG		SSSMini 3P	H14	UNR4121	UN4121	NS	H17
UNR211F	UN211F	Mini 3P	H17	UNR31AF		SSSMini 3P	H14	UNR4122	UN4122	NS	H17
UNR211H	UN211H	Mini 3P	H17	UNR31AFG		SSSMini 3P	H14	UNR4123	UN4123	NS	H17
UNR211L	UN211L	Mini 3P	H17	UNR31AH		SSSMini 3P	H14	UNR4124	UN4124	NS	H17
UNR211M	UN211M	Mini 3P	H17	UNR31AHG		SSSMini 3P	H14	UNR4210	UN4210	NS	H17
UNR211N	UN211N	Mini 3P	H17	UNR31AL		SSSMini 3P	H14	UNR4211	UN4211	NS	H17
UNR211T	UN211T	Mini 3P	H17	UNR31ALG		SSSMini 3P	H14	UNR4212	UN4212	NS	H17
UNR211V	UN211V	Mini 3P	H17	UNR31AM		SSSMini 3P	H14	UNR4213	UN4213	NS	H17
UNR211W		Mini 3P	H17	UNR31AMG		SSSMini 3P	H14	UNR4214	UN4214	NS	H17
UNR211Z	UN211Z	Mini 3P	H17	UNR31AN		SSSMini 3P	H14	UNR4215	UN4215	NS	H17
UNR2121	UN2121	Mini 3P	H17	UNR31ANG		SSSMini 3P	H14	UNR4216	UN4216	NS	H17
UNR2122	UN2122	Mini 3P	H17	UNR31AT		SSSMini 3P	H14	UNR4217	UN4217	NS	H17
UNR2123	UN2123	Mini 3P	H17	UNR31ATG		SSSMini 3P	H14	UNR4218	UN4218	NS	H17
UNR2124	UN2124	Mini 3P	H17	UNR31AV		SSSMini 3P	H14	UNR4219	UN4219	NS	H17
UNR212X	UN212X	Mini 3P	H17	UNR31AVG		SSSMini 3P	H14	UNR421D	UN421D	NS	H17
UNR212Y	UN212Y	Mini 3P	H17	UNR32A0		SSSMini 3P	H14	UNR421E	UN421E	NS	H17
UNR2154	UN2154	Mini 3P	H17	UNR32A0G		SSSMini 3P	H14	UNR421F	UN421F	NS	H17
UNR2210	UN2210	Mini 3P	H17	UNR32A1		SSSMini 3P	H14	UNR421K	UN421K	NS	H17
UNR2211	UN2211	Mini 3P	H17	UNR32A1G		SSSMini 3P	H14	UNR421L	UN421L	NS	H17
UNR2212	UN2212	Mini 3P	H17	UNR32A2		SSSMini 3P	H14	UNR4221	UN4221	NS	H17
UNR2213	UN2213	Mini 3P	H17	UNR32A2G		SSSMini 3P	H14	UNR4222	UN4222	NS	H17
UNR2214	UN2214	Mini 3P	H17	UNR32A3		SSSMini 3P	H14	UNR4223	UN4223	NS	H17
UNR2215	UN2215	Mini 3P	H17	UNR32A3G		SSSMini 3P	H14	UNR4224	UN4224	NS	H17
UNR2216	UN2216	Mini 3P	H17	UNR32A4		SSSMini 3P	H14	UNR5110		SMini 3P	H16
UNR2217	UN2217	Mini 3P	H17	UNR32A4G		SSSMini 3P	H14	UNR5110G		SMini 3P	H16
UNR2218	UN2218	Mini 3P	H17	UNR32A5		SSSMini 3P	H14	UNR5111		SMini 3P	H16
UNR2219	UN2219	Mini 3P	H17	UNR32A5G		SSSMini 3P	H14	UNR5111G		SMini 3P	H16
UNR221D	UN221D	Mini 3P	H17	UNR32A6		SSSMini 3P	H14	UNR5112		SMini 3P	H16
UNR221E	UN221E	Mini 3P	H17	UNR32A6G		SSSMini 3P	H14	UNR5112G		SMini 3P	H16
UNR221F	UN221F	Mini 3P	H17	UNR32A7		SSSMini 3P	H14	UNR5113		SMini 3P	H16
UNR221K	UN221K	Mini 3P	H17	UNR32A7G		SSSMini 3P	H14	UNR5113G		SMini 3P	H16
UNR221L	UN221L	Mini 3P	H17	UNR32A8		SSSMini 3P	H14	UNR5114		SMini 3P	H16
UNR221M	UN221M	Mini 3P	H17	UNR32A8G		SSSMini 3P	H14	UNR5114G		SMini 3P	H16
UNR221N	UN221N	Mini 3P	H17	UNR32A9		SSSMini 3P	H14	UNR5115		SMini 3P	H16
UNR221T	UN221T	Mini 3P	H17	UNR32A9G		SSSMini 3P	H14	UNR5115G		SMini 3P	H16
UNR221V	UN221V	Mini 3P	H17	UNR32AA		SSSMini 3P	H14	UNR5116		SMini 3P	H16
UNR221W		Mini 3P	H17	UNR32AAG		SSSMini 3P	H14	UNR5116G		SMini 3P	H16
UNR221Z	UN221Z	Mini 3P	H17	UNR32AEG		SSSMini 3P	H14	UNR5117		SMini 3P	H16
UNR2221	UN2221	Mini 3P	H17	UNR32AF		SSSMini 3P	H14	UNR5117G		SMini 3P	H16
UNR2222	UN2222	Mini 3P	H17	UNR32AFG		SSSMini 3P	H14	UNR5118		SMini 3P	H16
UNR2223	UN2223	Mini 3P	H17	UNR32AL		SSSMini 3P	H14	UNR5118G		SMini 3P	H16
UNR2224	UN2224	Mini 3P	H17	UNR32ALG		SSSMini 3P	H14	UNR5119		SMini 3P	H16
UNR2225	UN2225	Mini 3P	H17	UNR32AM		SSSMini 3P	H14	UNR5119G		SMini 3P	H16
UNR2226	UN2226	Mini 3P	H17	UNR32AMG		SSSMini 3P	H14	UNR511D		SMini 3P	H16
UNR2227	UN2227	Mini 3P	H17					UNR511DG		SMini 3P	H16

Part Number List

Part No.	C Part No.	Package	Page	Part No.	C Part No.	Package	Page	Part No.	C Part No.	Package	Page
UNR511E		SMini 3P	H16	UNR521KG		SMini 3P	H16	UNR911FJ	UN911FJ	SSMini 3P	H16
UNR511EG		SMini 3P	H16	UNR521L		SMini 3P	H16	UNR911HG		SSMini 3P	H16
UNR511F		SMini 3P	H16	UNR521LG		SMini 3P	H16	UNR911HJ	UN911HJ	SSMini 3P	H16
UNR511FG		SMini 3P	H16	UNR521M		SMini 3P	H16	UNR911LG		SSMini 3P	H16
UNR511H		SMini 3P	H16	UNR521MG		SMini 3P	H16	UNR911LJ	UN911LJ	SSMini 3P	H16
UNR511HG		SMini 3P	H16	UNR521N		SMini 3P	H16	UNR911MG		SSMini 3P	H16
UNR511L		SMini 3P	H16	UNR521NG		SMini 3P	H16	UNR911MJ	UN911MJ	SSMini 3P	H16
UNR511LG		SMini 3P	H16	UNR521T		SMini 3P	H16	UNR911NG		SSMini 3P	H16
UNR511M		SMini 3P	H16	UNR521TG		SMini 3P	H16	UNR911NJ		SSMini 3P	H16
UNR511MG		SMini 3P	H16	UNR521V		SMini 3P	H16	UNR911TG		SSMini 3P	H16
UNR511N		SMini 3P	H16	UNR521VG		SMini 3P	H16	UNR911TJ	UN911TJ	SSMini 3P	H16
UNR511NG		SMini 3P	H16	UNR521W		SMini 3P	H16	UNR911VG		SSMini 3P	H16
UNR511T		SMini 3P	H16	UNR521WG		SMini 3P	H16	UNR911VJ	UN911VJ	SSMini 3P	H16
UNR511TG		SMini 3P	H16	UNR521Z		SMini 3P	H16	UNR91A0G		SSMini 3P	H15
UNR511V		SMini 3P	H16	UNR521ZG		SMini 3P	H16	UNR91A0J		SSMini 3P	H15
UNR511VG		SMini 3P	H16	UNR5225		SMini 3P	H16	UNR91A1G		SSMini 3P	H15
UNR511Z		SMini 3P	H16	UNR5225G		SMini 3P	H16	UNR91A1J		SSMini 3P	H15
UNR511ZG		SMini 3P	H16	UNR5226		SMini 3P	H16	UNR91A2G		SSMini 3P	H15
UNR5154		SMini 3P	H16	UNR5226G		SMini 3P	H16	UNR91A2J		SSMini 3P	H15
UNR5154G		SMini 3P	H16	UNR52A0G		SMini 3P	H15	UNR91A3G		SSMini 3P	H15
UNR5174		SMini 3P	H16	UNR52A1G		SMini 3P	H15	UNR91A3J		SSMini 3P	H15
UNR5174G		SMini 3P	H16	UNR52A2G		SMini 3P	H15	UNR91A4G		SSMini 3P	H15
UNR51A0G		SMini 3P	H15	UNR52A3G		SMini 3P	H15	UNR91A4J		SSMini 3P	H15
UNR51A1G		SMini 3P	H15	UNR52A4G		SMini 3P	H15	UNR91A5G		SSMini 3P	H15
UNR51A2G		SMini 3P	H15	UNR52A5G		SMini 3P	H15	UNR91A5J		SSMini 3P	H15
UNR51A3G		SMini 3P	H15	UNR52A6G		SMini 3P	H15	UNR91A6G		SSMini 3P	H15
UNR51A4G		SMini 3P	H15	UNR52A7G		SMini 3P	H15	UNR91A6J		SSMini 3P	H15
UNR51A5G		SMini 3P	H15	UNR52A8G		SMini 3P	H15	UNR91A7G		SSMini 3P	H15
UNR51A6G		SMini 3P	H15	UNR52A9G		SMini 3P	H15	UNR91A7J		SSMini 3P	H15
UNR51A7G		SMini 3P	H15	UNR52AAG		SMini 3P	H15	UNR91A9G		SSMini 3P	H15
UNR51A8G		SMini 3P	H15	UNR52AEG		SMini 3P	H15	UNR91A9J		SSMini 3P	H15
UNR51A9G		SMini 3P	H15	UNR52AFG		SMini 3P	H15	UNR91AAG		SSMini 3P	H15
UNR51AAG		SMini 3P	H15	UNR52ALG		SMini 3P	H15	UNR91AAJ		SSMini 3P	H15
UNR51AEG		SMini 3P	H15	UNR52AMG		SMini 3P	H15	UNR91AEG		SSMini 3P	H15
UNR51AFG		SMini 3P	H15	UNR52ANG		SMini 3P	H15	UNR91AEJ		SSMini 3P	H15
UNR51AHG		SMini 3P	H15	UNR52ATG		SMini 3P	H15	UNR91AFG		SSMini 3P	H15
UNR51ALG		SMini 3P	H15	UNR52AVG		SMini 3P	H15	UNR91AFJ		SSMini 3P	H15
UNR51AMG		SMini 3P	H15	UNR9110G		SSMini 3P	H16	UNR91AHG		SSMini 3P	H15
UNR51ANG		SMini 3P	H15	UNR9110J	UN9110J	SSMini 3P	H16	UNR91AHJ		SSMini 3P	H15
UNR51ATG		SMini 3P	H15	UNR9111G		SSMini 3P	H16	UNR91ALG		SSMini 3P	H15
UNR51AVG		SMini 3P	H15	UNR9111J	UN9111J	SSMini 3P	H16	UNR91ALJ		SSMini 3P	H15
UNR5210		SMini 3P	H16	UNR9112G		SSMini 3P	H16	UNR91AMG		SSMini 3P	H15
UNR5210G		SMini 3P	H16	UNR9112J	UN9112J	SSMini 3P	H16	UNR91AMJ		SSMini 3P	H15
UNR5211		SMini 3P	H16	UNR9113G		SSMini 3P	H16	UNR91ANG		SSMini 3P	H15
UNR5211G		SMini 3P	H16	UNR9113J	UN9113J	SSMini 3P	H16	UNR91ANJ		SSMini 3P	H15
UNR5212		SMini 3P	H16	UNR9114G		SSMini 3P	H16	UNR91ATG		SSMini 3P	H15
UNR5212G		SMini 3P	H16	UNR9114J	UN9114J	SSMini 3P	H16	UNR91ATJ		SSMini 3P	H15
UNR5213		SMini 3P	H16	UNR9115G		SSMini 3P	H16	UNR91AVG		SSMini 3P	H15
UNR5213G		SMini 3P	H16	UNR9115J	UN9115J	SSMini 3P	H16	UNR91AVJ		SSMini 3P	H15
UNR5214		SMini 3P	H16	UNR9116G		SSMini 3P	H16	UNR9210G		SSMini 3P	H16
UNR5214G		SMini 3P	H16	UNR9116J	UN9116J	SSMini 3P	H16	UNR9210J	UN9210J	SSMini 3P	H16
UNR5215		SMini 3P	H16	UNR9117G		SSMini 3P	H16	UNR9211G		SSMini 3P	H16
UNR5215G		SMini 3P	H16	UNR9117J	UN9117J	SSMini 3P	H16	UNR9211J	UN9211J	SSMini 3P	H16
UNR5216		SMini 3P	H16	UNR9118G		SSMini 3P	H16	UNR9212G		SSMini 3P	H16
UNR5216G		SMini 3P	H16	UNR9118J	UN9118J	SSMini 3P	H16	UNR9212J	UN9212J	SSMini 3P	H16
UNR5217		SMini 3P	H16	UNR9119G		SSMini 3P	H16	UNR9213G		SSMini 3P	H16
UNR5217G		SMini 3P	H16	UNR9119J	UN9119J	SSMini 3P	H16	UNR9213J	UN9213J	SSMini 3P	H16
UNR5218		SMini 3P	H16	UNR911AG		SSMini 3P	H16	UNR9214G		SSMini 3P	H16
UNR5218G		SMini 3P	H16	UNR911AJ	UN911AJ	SSMini 3P	H16	UNR9214J	UN9214J	SSMini 3P	H16
UNR5219		SMini 3P	H16	UNR911BG		SSMini 3P	H16	UNR9215G		SSMini 3P	H16
UNR5219G		SMini 3P	H16	UNR911BJ	UN911BJ	SSMini 3P	H16	UNR9215J	UN9215J	SSMini 3P	H16
UNR521D		SMini 3P	H16	UNR911CG		SSMini 3P	H16	UNR9216G		SSMini 3P	H16
UNR521DG		SMini 3P	H16	UNR911CJ		SSMini 3P	H16	UNR9216J	UN9216J	SSMini 3P	H16
UNR521E		SMini 3P	H16	UNR911DG		SSMini 3P	H16	UNR9217G		SSMini 3P	H16
UNR521EG		SMini 3P	H16	UNR911DJ	UN911DJ	SSMini 3P	H16	UNR9217J	UN9217J	SSMini 3P	H16
UNR521F		SMini 3P	H16	UNR911EG		SSMini 3P	H16	UNR9218G		SSMini 3P	H16
UNR521FG		SMini 3P	H16	UNR911EJ	UN911EJ	SSMini 3P	H16	UNR9218J	UN9218J	SSMini 3P	H16
UNR521K		SMini 3P	H16	UNR911FG		SSMini 3P	H16	UNR9219G		SSMini 3P	H16

Part Number List

A

Part No.	C Part No.	Package	Page	Part No.	C Part No.	Package	Page	Part No.	C Part No.	Package	Page
UNR9219J	UN9219J	SSMini 3P	H16	UNRF1A7		ML3-N2	H14	UP04210		SSMini 6P	H18
UNR921AG		SSMini 3P	H16	UNRF1A9		ML3-N2	H14	UP04210G		SSMini 6P	H18
UNR921AJ		SSMini 3P	H16	UNRF1AA		ML3-N2	H14	UP04211		SSMini 6P	H18
UNR921BG		SSMini 3P	H16	UNRF1AF		ML3-N2	H14	UP04211G		SSMini 6P	H18
UNR921BJ		SSMini 3P	H16	UNRF1AH		ML3-N2	H14	UP04212		SSMini 6P	H18
UNR921CG		SSMini 3P	H16	UNRF1AL		ML3-N2	H14	UP04212G		SSMini 6P	H18
UNR921CJ		SSMini 3P	H16	UNRF1AM		ML3-N2	H14	UP04213		SSMini 6P	H18
UNR921DG		SSMini 3P	H16	UNRF1AN		ML3-N2	H14	UP04213G		SSMini 6P	H18
UNR921DJ	UN921DJ	SSMini 3P	H16	UNRF1AT		ML3-N2	H14	UP04214		SSMini 6P	H18
UNR921EG		SSMini 3P	H16	UNRF2A0		ML3-N2	H14	UP04214G		SSMini 6P	H18
UNR921EJ	UN921EJ	SSMini 3P	H16	UNRF2A1		ML3-N2	H14	UP04215		SSMini 6P	H18
UNR921FG		SSMini 3P	H16	UNRF2A2		ML3-N2	H14	UP04215G		SSMini 6P	H18
UNR921FJ	UN921FJ	SSMini 3P	H16	UNRF2A3		ML3-N2	H14	UP04216		SSMini 6P	H18
UNR921KG		SSMini 3P	H16	UNRF2A4		ML3-N2	H14	UP04216G		SSMini 6P	H18
UNR921KJ	UN921KJ	SSMini 3P	H16	UNRF2A5		ML3-N2	H14	UP04217		SSMini 6P	H18
UNR921LG		SSMini 3P	H16	UNRF2A6		ML3-N2	H14	UP04217G		SSMini 6P	H18
UNR921LJ	UN921LJ	SSMini 3P	H16	UNRF2A7		ML3-N2	H14	UP0421N		SSMini 6P	H18
UNR921MG		SSMini 3P	H16	UNRF2A8		ML3-N2	H14	UP0421NG		SSMini 6P	H18
UNR921MJ	UN921MJ	SSMini 3P	H16	UNRF2A9		ML3-N2	H14	UP04311		SSMini 6P	H20
UNR921NG		SSMini 3P	H16	UNRF2AF		ML3-N2	H14	UP04311G		SSMini 6P	H20
UNR921NJ		SSMini 3P	H16	UNRF2AK		ML3-N2	H14	UP04312		SSMini 6P	H20
UNR921TG		SSMini 3P	H16	UNRF2AL		ML3-N2	H14	UP04312G		SSMini 6P	H20
UNR921TJ	UN921TJ	SSMini 3P	H16	UNRF2AM		ML3-N2	H14	UP04313		SSMini 6P	H20
UNR921VG		SSMini 3P	H16	UNRF2AN		ML3-N2	H14	UP04313G		SSMini 6P	H20
UNR921VJ		SSMini 3P	H16	UNRF2AT		ML3-N2	H14	UP04314		SSMini 6P	H20
UNR92A0G		SSMini 3P	H15	UNRF2AV		ML3-N2	H14	UP04314G		SSMini 6P	H20
UNR92A0J		SSMini 3P	H15	UP01113		SSMini 5P	H19	UP04315		SSMini 6P	H20
UNR92A1G		SSMini 3P	H15	UP01113G		SSMini 5P	H19	UP04315G		SSMini 6P	H20
UNR92A1J		SSMini 3P	H15	UP0111FG		SSMini 5P	H19	UP04316		SSMini 6P	H20
UNR92A2G		SSMini 3P	H15	★ UP01211G		SSMini 5P	H18	UP04316G		SSMini 6P	H20
UNR92A2J		SSMini 3P	H15	★ UP0121EG		SSMini 5P	H18	★ UP0431MG		SSMini 6P	H20
UNR92A3G		SSMini 3P	H15	UP01212		SSMini 5P	H18	UP0431N		SSMini 6P	H20
UNR92A3J		SSMini 3P	H15	UP01212G		SSMini 5P	H18	UP0431NG		SSMini 6P	H20
UNR92A4G		SSMini 3P	H15	UP01213		SSMini 5P	H18	★ UP0431TG		SSMini 6P	H20
UNR92A4J		SSMini 3P	H15	UP01213G		SSMini 5P	H18	UP04383G		SSMini 6P	H21
UNR92A5G		SSMini 3P	H15	UP01214		SSMini 5P	H18	UP04387		SSMini 6P	H21
UNR92A5J		SSMini 3P	H15	UP01214G		SSMini 5P	H18	UP04387G		SSMini 6P	H21
UNR92A6G		SSMini 3P	H15	UP0121M		SSMini 5P	H18	UP04390		SSMini 6P	H21
UNR92A6J		SSMini 3P	H15	UP0121MG		SSMini 5P	H18	UP04390G		SSMini 6P	H21
UNR92A7G		SSMini 3P	H15	UP01878		SSMini 5P	H4	UP04401		SSMini 6P	H13
UNR92A7J		SSMini 3P	H15	★ UP01878G		SSMini 5P	H4	UP04401G		SSMini 6P	H13
UNR92A8G		SSMini 3P	H15	UP0187B		SSMini 5P	H4	UP04501		SSMini 6P	H12
UNR92A8J		SSMini 3P	H15	UP0187BG		SSMini 5P	H4	UP04501G		SSMini 6P	H12
UNR92A9G		SSMini 3P	H15	★ UP03311G		SSMini 5P	H20	★ UP04532G		SSMini 6P	H12
UNR92A9J		SSMini 3P	H15	UP03312		SSMini 5P	H20	UP04534		SSMini 6P	H12
UNR92AAG		SSMini 3P	H15	UP03312G		SSMini 5P	H20	UP04534G		SSMini 6P	H12
UNR92AAJ		SSMini 3P	H15	UP03383		SSMini 5P	H21	UP04598		SSMini 6P	H12
UNR92AEG		SSMini 3P	H15	UP03383G		SSMini 5P	H21	UP04598G		SSMini 6P	H12
UNR92AEJ		SSMini 3P	H15	UP03390		SSMini 5P	H21	UP04599		SSMini 6P	H12
UNR92AFG		SSMini 3P	H15	UP03390G		SSMini 5P	H21	UP04599G		SSMini 6P	H12
UNR92AFJ		SSMini 3P	H15	UP03394		SSMini 5P	H21	UP04601		SSMini 6P	H13
UNR92ALG		SSMini 3P	H15	UP03394G		SSMini 5P	H21	UP04601G		SSMini 6P	H13
UNR92ALJ		SSMini 3P	H15	UP03396		SSMini 5P	H21	UP04878		SSMini 6P	H5
UNR92AMG		SSMini 3P	H15	UP03396G		SSMini 5P	H21	UP04878G		SSMini 6P	H5
UNR92AMJ		SSMini 3P	H15	UP03397		SSMini 5P	H21	UP0487B		SSMini 6P	H5
UNR92ANG		SSMini 3P	H15	UP03397G		SSMini 5P	H21	UP0487BG		SSMini 6P	H5
UNR92ANJ		SSMini 3P	H15	UP04111		SSMini 6P	H19	UP0487C		SSMini 6P	H5
UNR92ATG		SSMini 3P	H15	UP04111G		SSMini 6P	H19	UP0487CG		SSMini 6P	H5
UNR92ATJ		SSMini 3P	H15	UP04112		SSMini 6P	H19	UP04979		SSMini 6P	H5
UNR92AVG		SSMini 3P	H15	UP04112G		SSMini 6P	H19	UP04979G		SSMini 6P	H5
UNR92AVJ		SSMini 3P	H15	UP04113		SSMini 6P	H19	UP0497A		SSMini 6P	H5
UNRF1A0		ML3-N2	H14	UP04113G		SSMini 6P	H19	UP0497AG		SSMini 6P	H5
UNRF1A1		ML3-N2	H14	UP04116		SSMini 6P	H19	★ UP04A8MG		SSMini 6P	H21
UNRF1A2		ML3-N2	H14	UP04116G		SSMini 6P	H19	△ UP06501G		SSMini 6P	H12
UNRF1A3		ML3-N2	H14	UP04117G		SSMini 6P	H19	XN01110		Mini 5P	H19
UNRF1A4		ML3-N2	H14	UP0411M		SSMini 6P	H19	XN01111	XN1111	Mini 5P	H19
UNRF1A5		ML3-N2	H14	UP0411MG		SSMini 6P	H19	XN01112	XN1112	Mini 5P	H19
UNRF1A6		ML3-N2	H14	★ UP0411TG		SSMini 6P	H19	XN01113	XN1113	Mini 5P	H19

★: Newly listed in this document △: Tentative

Part Number List

Part No.	C Part No.	Package	Page	Part No.	C Part No.	Package	Page	Part No.	C Part No.	Package	Page
XN01114	XN1114	Mini 5P	H19	XN06211	XN6211	Mini 6P	H18	XP04211	XP4211	SMini 6P	H18
XN01115	XN1115	Mini 5P	H19	XN06213	XN6213	Mini 6P	H18	XP04212	XP4212	SMini 6P	H18
XN01116	XN1116	Mini 5P	H19	XN06214	XN6214	Mini 6P	H18	XP04213	XP4213	SMini 6P	H18
XN01119	XN1119	Mini 5P	H19	XN06215	XN6215	Mini 6P	H18	XP04214	XP4214	SMini 6P	H18
XN0111F	XN111F	Mini 5P	H19	XN06216	XN6216	Mini 6P	H18	XP04215	XP4215	SMini 6P	H18
XN0111H	XN111H	Mini 5P	H19	XN06401	XN6401	Mini 6P	H13	XP04216	XP4216	SMini 6P	H18
XN0111M	XN111M	Mini 5P	H19	XN06435	XN6435	Mini 6P	H13	XP04217	XP4217	SMini 6P	H18
XN01210	XN1210	Mini 5P	H18	XN06501	XN6501	Mini 6P	H12	XP0421M		SMini 6P	H18
XN01211	XN1211	Mini 5P	H18	XN06534	XN6534	Mini 6P	H12	XP04286		SMini 6P	H21
XN01212	XN1212	Mini 5P	H18	XN06537	XN6537	Mini 6P	H12	XP04311	XP4311	SMini 6P	H20
XN01213	XN1213	Mini 5P	H18	XN06543	XN6543	Mini 6P	H12	XP04312	XP4312	SMini 6P	H20
XN01214	XN1214	Mini 5P	H18	XN0A311	XN1A311	Mini 5P	H20	XP04313	XP4313	SMini 6P	H20
XN01215	XN1215	Mini 5P	H18	XN0A312	XN1A312	Mini 5P	H20	XP04314	XP4314	SMini 6P	H20
XN01216	XN1216	Mini 5P	H18	XN0A554	XN6A554	Mini 6P	H12	XP04315	XP4315	SMini 6P	H20
XN0121E	XN121E	Mini 5P	H18	XN0B301	XN1B301	Mini 5P	H13	XP04316	XP4316	SMini 6P	H20
XN01401	XN1401	Mini 5P	H13	XN0C301	XN1C301	Mini 5P	H13	XP0431M		SMini 6P	H20
XN01501	XN1501	Mini 5P	H12	XP01110	XP1110	SMini 5P	H19	XP0431N		SMini 6P	H20
XN01531	XN1531	Mini 5P	H12	XP01111	XP1111	SMini 5P	H19	XP04387		SMini 6P	H21
XN01558		Mini 5P	H12	XP01112	XP1112	SMini 5P	H19	XP04401	XP4401	SMini 6P	H13
XN01601	XN1601	Mini 5P	H13	XP01113	XP1113	SMini 5P	H19	XP04501	XP4501	SMini 6P	H12
XN01602		Mini 5P	H13	XP01114	XP1114	SMini 5P	H19	XP04506	XP4506	SMini 6P	H12
XN01872	XN1872	Mini 5P	H4	XP01115	XP1115	SMini 5P	H19	XP04601	XP4601	SMini 6P	H13
XN02401	XN2401	Mini 5P	H13	XP01116	XP1116	SMini 5P	H19	XP04654	XP4654	SMini 6P	H13
XN02501	XN2501	Mini 5P	H12	XP01117	XP1117	SMini 5P	H19	XP04878		SMini 6P	H5
XN04111	XN4111	Mini 6P	H19	XP01118	XP1118	SMini 5P	H19	XP0497A		SMini 6P	H5
XN04112	XN4112	Mini 6P	H19	XP01119	XP1119	SMini 5P	H19	XP05501	XP5501	SMini 6P	H12
XN04113	XN4113	Mini 6P	H19	XP0111F	XP111F	SMini 5P	H19	XP05531		SMini 6P	H12
XN04114	XN4114	Mini 6P	H19	XP0111H	XP111H	SMini 5P	H19	XP05534		SMini 6P	H12
XN04115	XN4115	Mini 6P	H19	XP0111M		SMini 5P	H19	XP05553		SMini 6P	H12
XN04116	XN4116	Mini 6P	H19	XP01210	XP1210	SMini 5P	H18	XP05554		SMini 6P	H12
XN04130	XN4130	Mini 6P	H19	XP01211	XP1211	SMini 5P	H18	XP05601	XP5601	SMini 6P	H13
XN04210	XN4210	Mini 6P	H18	XP01212	XP1212	SMini 5P	H18	XP06111	XP6111	SMini 6P	H19
XN04211	XN4211	Mini 6P	H18	XP01213	XP1213	SMini 5P	H18	XP06112	XP6112	SMini 6P	H19
XN04212	XN4212	Mini 6P	H18	XP01214	XP1214	SMini 5P	H18	XP06113	XP6113	SMini 6P	H19
XN04213	XN4213	Mini 6P	H18	XP01215	XP1215	SMini 5P	H18	XP06114	XP6114	SMini 6P	H19
XN04214	XN4214	Mini 6P	H18	XP01216	XP1216	SMini 5P	H18	XP06115	XP6115	SMini 6P	H19
XN04215	XN4215	Mini 6P	H18	XP01217	XP1217	SMini 5P	H18	XP06116	XP6116	SMini 6P	H19
XN04216	XN4216	Mini 6P	H18	XP0121E		SMini 5P	H18	XP06210	XP6210	SMini 6P	H18
XN0421F	XN421F	Mini 6P	H18	XP0121L		SMini 5P	H18	XP06211	XP6211	SMini 6P	H18
XN0421L	XN421L	Mini 6P	H18	XP0121M		SMini 5P	H18	XP06212	XP6212	SMini 6P	H18
XN04311	XN4311	Mini 6P	H20	XP0121N		SMini 5P	H18	XP06213	XP6213	SMini 6P	H18
XN04312	XN4312	Mini 6P	H20	XP01401	XP1401	SMini 5P	H13	XP06214	XP6214	SMini 6P	H18
XN04314	XN4314	Mini 6P	H20	XP01501	XP1501	SMini 5P	H12	XP06215	XP6215	SMini 6P	H18
XN04315	XN4315	Mini 6P	H20	XP01531		SMini 5P	H12	XP06216	XP6216	SMini 6P	H18
XN04316	XN4316	Mini 6P	H20	XP01554	XP1554	SMini 5P	H12	XP06401	XP6401	SMini 6P	H13
XN04322	XN4322	Mini 6P	H20	XP01601	XP1601	SMini 5P	H13	XP06435	XP6435	SMini 6P	H13
XN04381	XN4381	Mini 6P	H21	XP01878		SMini 5P	H4	XP06501	XP6501	SMini 6P	H12
XN04401	XN4401	Mini 6P	H13	XP02210	XP2210	SMini 5P	H18	XP06534	XP6534	SMini 6P	H12
XN04402	XN4402	Mini 6P	H13	XP02211	XP2211	SMini 5P	H18	XP06543		SMini 6P	H12
XN04404	XN4404	Mini 6P	H13	XP02215	XP2215	SMini 5P	H18	XP0B301	XP1B301	SMini 5P	H13
XN04482	XN4482	Mini 6P	H13	XP02401	XP2401	SMini 5P	H13	XP0C301	XP1C301	SMini 5P	H13
XN04501	XN4501	Mini 6P	H12	XP02501	XP2501	SMini 5P	H12				
XN04502	XN4502	Mini 6P	H12	XP03311		SMini 5P	H20				
XN04504	XN4504	Mini 6P	H12	XP03312		SMini 5P	H20				
XN04505	XN4505	Mini 6P	H12	XP03316		SMini 5P	H20				
XN04506	XN4506	Mini 6P	H12	XP03383		SMini 5P	H21				
XN04556	XN4556	Mini 6P	H12	XP03389		SMini 5P	H21				
XN04601	XN4601	Mini 6P	H13	XP03390		SMini 5P	H21				
XN04602		Mini 6P	H13	XP03391		SMini 5P	H21				
XN04604	XN4604	Mini 6P	H13	XP04111	XP4111	SMini 6P	H19				
XN04608	XN4608	Mini 6P	H13	XP04112	XP4112	SMini 6P	H19				
XN04609	XN4609	Mini 6P	H13	XP04113	XP4113	SMini 6P	H19				
XN04A88		Mini 6P	H21	XP04114	XP4114	SMini 6P	H19				
XN05501	XN5501	Mini 6P	H12	XP04115	XP4115	SMini 6P	H19				
XN05531	XN5531	Mini 6P	H12	XP04116	XP4116	SMini 6P	H19				
XN05553	XN5553	Mini 6P	H12	XP04117	XP4117	SMini 6P	H19				
XN05601	XN5601	Mini 6P	H13	XP0411M	XP411M	SMini 6P	H19				
XN06113	XN6113	Mini 6P	H19	XP04210	XP4210	SMini 6P	H18				

Part Number List

A

Part No.	C Part No.	Package	Page	Part No.	C Part No.	Package	Page	Part No.	C Part No.	Package	Page
Multi Chip Discrete Devices				Diodes				MA2J114	MA114	SMini 2P	K3
MTM76720		WSMini 6P	J2	MA21D340G		SMini 2P	K11	MA2J1140G	MA114	SMini 2P	K3
MTM86627		WSSMini 6P	J2	MA21D350G		SMini 2P	K11	MA2J115	MA115	SMini 2P	K3
△ MTM86627A		WSSMini 6P	J2	MA21D380G		SMini 2P	K11	MA2J1150G	MA115	SMini 2P	K3
MTM86727		WSSMini 6P	J2	MA21D382G		SMini 2P	K11	MA2J116	MA116	SMini 2P	K4
UP05C8B		SSMini 6P	J2	MA22D15		Mini 2P	K11	MA2J1160G	MA116	SMini 2P	K4
UP05C8BG		SSMini 6P	J2	MA22D17		Mini 2P	K10	MA2J704	MA10704	SMini 2P	K7
UP05C8G		SSMini 6P	J2	MA22D23		Mini 2P	K11	MA2J7040G	MA10704	SMini 2P	K7
UP05C8GF		SSMini 6P	J2	MA22D26		Mini 2P	K10	MA2J727		SMini 2P	K8
UP05C8GG		SSMini 6P	J2	MA22D28		Mini 2P	K11	MA2J7270G		SMini 2P	K8
UP05C8P		SSMini 6P	J2	MA22D39		Mini 2P	K12	MA2J728	MA728	SMini 2P	K6
UP05C8PG		SSMini 6P	J2	MA22D40		Mini 2P	K12	MA2J7280G	MA728	SMini 2P	K6
UP0KG8D		SSMini 5P	J2	MA22D41		Mini 2P	K11	MA2J729	MA729	SMini 2P	K8
UP0KG8DG		SSMini 6P	J2	MA22F20		Mini 2P	K13	MA2J7290G	MA729	SMini 2P	K8
				MA24D50		T Mini Power 2P	K12	MA2J732	MA732	SMini 2P	K6
				MA24D51		T Mini Power 2P	K12	MA2J7320G	MA732	SMini 2P	K6
				MA24D52		T Mini Power 2P	K12	MA2JP02		SMini 2P	K5
				MA24D54		T Mini Power 2P	K11	MA2JP020G		SMini 2P	K5
				MA24D58		T Mini Power 2P	K12	MA2S077		SSMini 2P	K5
				MA24D60		T Mini Power 2P	K12	MA2S077G		SSMini 2P	K5
				MA24D62		T Mini Power 2P	K12	MA2S101		SSMini 2P	K2
				MA24D70		T Mini Power 2P	K11	MA2S1010G		SSMini 2P	K2
				MA24F41		T Mini Power 2P	K13	MA2S111		SSMini 2P	K2
				△ MA24F70		T Mini Power 2P	K13	MA2S1110G		SSMini 2P	K2
				MA26077		ML3-N2	K5	MA2S728		SSMini 2P	K6
				MA26111		ML2-N1	K2	MA2S7280G		SSMini 2P	K6
				MA26728		ML2-N1	K6	MA2S784		SSMini 2P	K7
				MA26P01		ML2-N1	K5	MA2S7840G		SSMini 2P	K7
				MA26P02		ML2-N1	K5	MA2SD10		SSMini 2P	K7
				MA26P07		ML2-N1	K5	MA2SD100G		SSMini 2P	K7
				MA27077		SSSMini 2P	K5	MA2SD19		SSMini 2P	K7
				MA27077G		SSSMini 2P	K5	MA2SD190G		SSMini 2P	K7
				MA27111		SSSMini 2P	K2	MA2SD24		SSMini 2P	K7
				MA271110G		SSSMini 2P	K2	MA2SD240G		SSMini 2P	K7
				MA27728		SSSMini 2P	K6	MA2SD25		SSMini 2P	K7
				MA277280G		SSSMini 2P	K6	MA2SD250G		SSMini 2P	K7
				MA27784		SSSMini 2P	K7	MA2SD29		SSMini 2P	K7
				MA277840G		SSSMini 2P	K7	MA2SD290G		SSMini 2P	K7
				MA27D27		SSSMini 2P	K6	MA2SD30		SSMini 2P	K7
				MA27D270G		SSSMini 2P	K6	MA2SD300G		SSMini 2P	K7
				MA27D29		SSSMini 2P	K7	MA2SD31		SSMini 2P	K7
				MA27D290G		SSSMini 2P	K7	MA2SD310G		SSMini 2P	K7
				MA27D30		SSSMini 2P	K7	MA2SD32		SSMini 2P	K8
				MA27D300G		SSSMini 2P	K7	MA2SD320G		SSMini 2P	K8
				MA27E02		SSSMini 2P	K6	MA2SE01		SSMini 2P	K6
				MA27E020G		SSSMini 2P	K6	MA2SE010G		SSMini 2P	K6
				MA27P01		SSSMini 2P	K5	MA2SP01		SSMini 2P	K5
				MA27P010G		SSSMini 2P	K5	MA2SP010G		SSMini 2P	K5
				MA27P02		SSSMini 2P	K5	MA2SP02		SSMini 2P	K5
				MA27P020G		SSSMini 2P	K5	MA2SP020G		SSMini 2P	K5
				MA27P06		SSSMini 2P	K5	MA2SP05		SSMini 2P	K5
				MA27P060G		SSSMini 2P	K5	MA2SP050G		SSMini 2P	K5
				MA27P07		SSSMini 2P	K5	MA2SP06		SSMini 2P	K5
				MA27P070G		SSSMini 2P	K5	MA2SP060G		SSMini 2P	K5
				MA27P11		SSSMini 2P	K5	MA2YD15		Mini 2P	K11
				MA27P110G		SSSMini 2P	K5	MA2YD17		Mini 2P	K11
				MA27P12		SSSMini 2P	K5	MA2YD21		Mini 2P	K11
				MA27P120G		SSSMini 2P	K5	MA2YD23		Mini 2P	K11
				MA2DF31		TO220D	K13	MA2YD26		Mini 2P	K10
				MA2DF60		TO220D	K13	MA2YD33		Mini 2P	K10
				MA2DF62		TO220D	K13	MA2YF80		Mini 2P	K13
				MA2J111	MA111	SMini 2P	K3	★ △ MA2YJ50		Mini 2P	K12
				MA2J1110G	MA111	SMini 2P	K3	MA2Z001		SMini 2P	K3
				MA2J112	MA112	SMini 2P	K4	MA2Z0010G		SMini 2P	K3
				MA2J1120G	MA112	SMini 2P	K4	MA2Z720		SMini 2P	K8
				MA2J113	MA113	SMini 2P	K4	MA2Z7200G		SMini 2P	K8
				MA2J1130G	MA113	SMini 2P	K4	MA2Z748		SMini 2P	K8
								MA2Z7480G		SMini 2P	K8

★: Newly listed in this document △: Tentative

Part Number List

Part No.	C Part No.	Package	Page	Part No.	C Part No.	Package	Page	Part No.	C Part No.	Package	Page
MA2Z784	MA784	SMini 2P	K7	MA3S1370G		SSMini 3P	K4	MA3ZD120G		SMini 3P	K8
MA2Z7840G		SMini 2P	K7	MA3S781	MA781	SSMini 3P	K6	MA4J1130G		SMini 4P	K4
MA2Z785	MA785	SMini 2P	K7	MA3S7810G		SSMini 3P	K6	MA4S111		SSMini 4P	K2
MA2Z7850G		SMini 2P	K7	MA3S781D	MA781WA	SSMini 3P	K6	MA4SD01		SSMini 4P	K6
MA2ZD02		SMini 2P	K8	MA3S781DG		SSMini 3P	K6	MA4SD05X		SSMini 4P	K7
MA2ZD020G		SMini 2P	K8	MA3S781E	MA781WK	SSMini 3P	K6	MA4SD10		SSMini 4P	K7
MA2ZD14		SMini 2P	K6	MA3S781EG		SSMini 3P	K6	MA4X159A	MA159A	Mini 4P	K3
MA2ZD140G		SMini 2P	K6	MA3S781F		SSMini 3P	K6	MA4X160	MA160	Mini 4P	K4
MA2ZD18		SMini 2P	K8	MA3S781FG		SSMini 3P	K6	MA4X160A	MA160A	Mini 4P	K3
MA2ZD180G		SMini 2P	K8	MA3S795E	MA795WK	SSMini 3P	K6	MA4X174	MA174	Mini 4P	K3
MA36132E		ML3-N2	K2	MA3S795EG		SSMini 3P	K6	MA4X193	MA193	Mini 4P	K3
MA3D649	MA6D49	TO220D	K13	MA3SD05F		SSMini 3P	K7	MA4X194	MA194	Mini 4P	K4
MA3D650	MA6D50	TO220D	K13	MA3SD05FG		SSMini 3P	K7	MA4X713	MA713	Mini 4P	K9
MA3D652	MA6D52	TO220D	K13	MA3SD29F		SSMini 3P	K7	MA4X714	MA714	Mini 4P	K9
MA3D749	MA7D49	TO220D	K12	MA3SD29FG		SSMini 3P	K7	MA4X724	MA724	Mini 4P	K10
MA3D749A	MA7D49A	TO220D	K12	MA3SE01		SSMini 3P	K6	MA4X726	MA726	Mini 4P	K10
MA3D750	MA7D50	TO220D	K12	MA3SE010G		SSMini 3P	K6	MA4X746	MA746	Mini 4P	K10
MA3D750A	MA7D50A	TO220D	K12	MA3SE02		SSMini 3P	K6	MA4X796	MA796	Mini 4P	K9
MA3D752	MA7D52	TO220D	K12	MA3SE020G		SSMini 3P	K6	MA4Z159	MA4S159	SMini 4P	K3
MA3D752A	MA7D52A	TO220D	K12	MA3U649		U	K13	MA4Z1590G	MA4S159	SMini 4P	K3
MA3D755	MA7D55	TO220D	K12	MA3X100	MA10100	SMini 3P	K3	MA4Z713	MA4S713	SMini 4P	K6
MA3D799	MA10799	TO220D	K12	MA3X1000G		SMini 3P	K3	MA4Z7130G	MA4S713	SMini 4P	K6
△ MA3DD82		TO220D	K12	MA3X152A	MA152A	Mini 3P	K3	MA4ZD03		SMini 4P	K7
MA3DF30		TO220D	K13	MA3X152D	MA152WA	Mini 3P	K3	MA4ZD030G		SMini 4P	K7
MA3DF40		TO220D	K13	MA3X152E	MA152WK	Mini 3P	K3	MA4ZD14		SMini 4P	K6
MA3J142A	MA142A	SMini 3P	K3	MA3X152K	MA152K	Mini 3P	K3	MA4ZD140G		SMini 4P	K6
MA3J142AG		SMini 3P	K3	MA3X153	MA153	Mini 3P	K4	MA5J002D		SMini 5P	K3
MA3J142D	MA142WA	SMini 3P	K3	MA3X153A	MA153A	Mini 3P	K4	MA5J002E		SMini 5P	K3
MA3J142DG		SMini 3P	K3	MA3X157A	MA157A	Mini 3P	K4	MA5SD05XG		SSMini 5P	K7
MA3J142E	MA142WK	SMini 3P	K3	MA3X158	MA158	Mini 3P	K3	MA5SD29XG		SSMini 5P	K7
MA3J142EG		SMini 3P	K3	MA3X198	MA198	Mini 3P	K4	MA5SD30XG		SSMini 5P	K7
MA3J142K	MA142K	SMini 3P	K3	MA3X199	MA199	Mini 3P	K3	MA6J786X		SMini 6P	K9
MA3J142KG		SMini 3P	K3	MA3X701	MA10701	Mini 3P	K10	MA6J786Y		SMini 6P	K9
MA3J143	MA143	SMini 3P	K4	MA3X703	MA10703	Mini 3P	K10	MA6X121	MA121	Mini 6P	K3
MA3J1430G		SMini 3P	K4	MA3X704	MA704	Mini 3P	K9	MA6X122	MA122	Mini 6P	K3
MA3J143A	MA143A	SMini 3P	K4	MA3X704A	MA704A	Mini 3P	K9	MA6X123	MA123	Mini 6P	K3
MA3J143AG		SMini 3P	K4	MA3X704D	MA704WA	Mini 3P	K9	MA6X124	MA124	Mini 6P	K3
MA3J147	MA147	SMini 3P	K4	MA3X704E	MA704WK	Mini 3P	K9	MA6X125	MA125	Mini 6P	K4
MA3J1470G		SMini 3P	K4	MA3X715	MA715	Mini 3P	K9	MA6X126	MA126	Mini 6P	K3
MA3J700	MA10700	SMini 3P	K8	MA3X716	MA716	Mini 3P	K9	MA6X127	MA127	Mini 6P	K3
MA3J7000G		SMini 3P	K8	MA3X717	MA717	Mini 3P	K9	MA6X128	MA128	Mini 6P	K3
MA3J702	MA10702	SMini 3P	K8	MA3X717E	MA717WK	Mini 3P	K9	MA6X129	MA129	Mini 6P	K3
MA3J7020G		SMini 3P	K8	MA3X720	MA720	Mini 3P	K10	MA6X718	MA718	Mini 6P	K9
MA3J741	MA741	SMini 3P	K6	MA3X721	MA721	Mini 3P	K10	MA6Z121	MA6S121	SMini 6P	K3
MA3J7410G		SMini 3P	K6	MA3X721D	MA721WA	Mini 3P	K10	MA6Z718	MA6S718	SMini 6P	K9
MA3J741D	MA741WA	SMini 3P	K6	MA3X721E	MA721WK	Mini 3P	K10	MALD068X		SSSMini 2P	K17
MA3J741DG		SMini 3P	K6	MA3X727	MA727	Mini 3P	K10	MALD068XG		SSSMini 2P	K17
MA3J741E	MA741WK	SMini 3P	K6	MA3X740	MA740	Mini 3P	K10	MALH024YG		SMini 4P	K14
MA3J741EG		SMini 3P	K6	MA3X748	MA748	Mini 3P	K10	MALH027YG		SMini 4P	K14
MA3J742	MA742	SMini 3P	K6	MA3X786	MA786	Mini 3P	K9	MALH030YG		SMini 4P	K14
MA3J7420G		SMini 3P	K6	MA3X786D	MA786WA	Mini 3P	K9	MALH033YG		SMini 4P	K14
MA3J744	MA744	SMini 3P	K8	MA3X786E	MA786WK	Mini 3P	K9	MALH036YG		SMini 4P	K14
MA3J7440G		SMini 3P	K8	MA3X787	MA787	Mini 3P	K9	MALH039YG		SMini 4P	K14
MA3J745E	MA745WK	SMini 3P	K6	MA3X788	MA788	Mini 3P	K10	MALH043YG		SMini 4P	K14
MA3J745EG		SMini 3P	K6	MA3X789	MA789	Mini 3P	K10	MALH047YG		SMini 4P	K14
MA3JP02F		SMini 3P	K5	MA3X791	MA791	Mini 3P	K9	MALH051YG		SMini 4P	K14
MA3JP02FG		SMini 3P	K5	MA3XD11		Mini 3P	K11	MALH056YG		SMini 4P	K14
MA3S132A	MA132A	SSMini 3P	K2	MA3XD15		Mini 3P	K11	MALH062YG		SMini 4P	K14
MA3S132AG		SSMini 3P	K2	MA3XD21		Mini 3P	K11	MALH068YG		SMini 4P	K14
MA3S132D	MA132WA	SSMini 3P	K2	MA3Z792	MA792	SMini 3P	K7	MALH075YG		SMini 4P	K14
MA3S132DG		SSMini 3P	K2	MA3Z7920G		SMini 3P	K7	MALH082YG		SMini 4P	K14
MA3S132E	MA132WK	SSMini 3P	K2	MA3Z792D	MA792WA	SMini 3P	K7	MALH091YG		SMini 4P	K14
MA3S132EG		SSMini 3P	K2	MA3Z792DG		SMini 3P	K7	MALH100YG		SMini 4P	K14
MA3S132K	MA132K	SSMini 3P	K2	MA3Z792E	MA792WK	SMini 3P	K7	MALH110YG		SMini 4P	K14
MA3S132KG		SSMini 3P	K2	MA3Z792EG		SMini 3P	K7	MALH120YG		SMini 4P	K14
MA3S133	MA133	SSMini 3P	K4	MA3Z793	MA793	SMini 3P	K7	MALH130YG		SMini 4P	K14
MA3S1330G		SSMini 3P	K4	MA3Z7930G	MA793	SMini 3P	K7	MALH150YG		SMini 4P	K14
MA3S137	MA137	SSMini 3P	K4	MA3ZD12		SMini 3P	K8	MALH160YG		SMini 4P	K14

*: Newly listed in this document △: Tentative

Part Number List

A

Part No.	C Part No.	Package	Page	Part No.	C Part No.	Package	Page	Part No.	C Part No.	Package	Page
MALH180YG		SMini 4P	K14	MAZ8024	MA8024	SMini 2P	K14	MAZA082		ML2-N1	K14
MALH200YG		SMini 4P	K15	MAZ8024G	MA8024	SMini 2P	K14	MAZC062D		Mini 3P	K17
MALH220YG		SMini 4P	K15	MAZ8027	MA8027	SMini 2P	K14	MAZD051		SSSMini 2P	K14
MALH240YG		SMini 4P	K15	MAZ8027G	MA8027	SMini 2P	K14	MAZD051G		SSSMini 2P	K14
MALH270YG		SMini 4P	K15	MAZ8030	MA8030	SMini 2P	K14	MAZD056		SSSMini 2P	K14
MALH300YG		SMini 4P	K15	MAZ8030G	MA8030	SMini 2P	K14	MAZD056G		SSSMini 2P	K14
MALH330YG		SMini 4P	K15	MAZ8033	MA8033	SMini 2P	K14	MAZD062		SSSMini 2P	K14
MALH360YG		SMini 4P	K15	MAZ8033G	MA8033	SMini 2P	K14	MAZD062G		SSSMini 2P	K14
MALH390YG		SMini 4P	K15	MAZ8036	MA8036	SMini 2P	K14	MAZD068		SSSMini 2P	K14
MALM062HG		SSMini 5P	K17	MAZ8036G	MA8036	SMini 2P	K14	MAZD068G		SSSMini 2P	K14
MALS062		SSMini 2P	K17	MAZ8039	MA8039	SMini 2P	K14	MAZD075		SSSMini 2P	K14
MALS062G		SSMini 2P	K17	MAZ8039G	MA8039	SMini 2P	K14	MAZD075G		SSSMini 2P	K14
MALS068		SSMini 2P	K17	MAZ8043	MA8043	SMini 2P	K14	MAZD082		SSSMini 2P	K14
MALS068G		SSMini 2P	K17	MAZ8043G	MA8043	SMini 2P	K14	MAZD082G		SSSMini 2P	K14
MALS068X		SSMini 2P	K17	MAZ8047	MA8047	SMini 2P	K14	MAZD091		SSSMini 2P	K14
MALS068XG		SSMini 2P	K17	MAZ8047G	MA8047	SMini 2P	K14	MAZD091G		SSSMini 2P	K14
MALS160X		SSMini 2P	K17	MAZ8051	MA8051	SMini 2P	K14	MAZD100		SSSMini 2P	K14
MALS160XG		SSMini 2P	K17	MAZ8051G	MA8051	SMini 2P	K14	MAZD100G		SSSMini 2P	K14
MALS180X		SSMini 2P	K17	MAZ8056	MA8056	SMini 2P	K14	MAZD110		SSSMini 2P	K14
MALS180XG		SSMini 2P	K17	MAZ8056G	MA8056	SMini 2P	K14	MAZD110G		SSSMini 2P	K14
MALT062H		SSMini 3P	K17	MAZ8062	MA8062	SMini 2P	K14	MAZD120		SSSMini 2P	K14
MALT062HG		SSMini 3P	K17	MAZ8062G	MA8062	SMini 2P	K14	MAZD120G		SSSMini 2P	K14
MANV250GE		SMini 2P	K17	MAZ8068	MA8068	SMini 2P	K14	MAZD160		SSSMini 2P	K14
MAS3132D		SSSMini 3P	K2	MAZ8068G	MA8068	SMini 2P	K14	MAZD160G		SSSMini 2P	K14
MAS3132DG		SSSMini 3P	K2	MAZ8075	MA8075	SMini 2P	K14	MAZD180		SSSMini 2P	K14
MAS3132E		SSSMini 3P	K2	MAZ8075G	MA8075	SMini 2P	K14	MAZD180G		SSSMini 2P	K14
MAS3132EG		SSSMini 3P	K2	MAZ8082	MA8082	SMini 2P	K14	MAZD200		SSSMini 2P	K15
MAS3795E		SSSMini 3P	K6	MAZ8082G	MA8082	SMini 2P	K14	MAZD200G		SSSMini 2P	K15
MAS3795EG		SSSMini 3P	K6	MAZ8091	MA8091	SMini 2P	K14	MAZD220		SSSMini 2P	K15
MAU2111		USSMini 2P	K2	MAZ8091G	MA8091	SMini 2P	K14	MAZD220G		SSSMini 2P	K15
MAU27280G		USSMini 2P	K6	MAZ8100	MA8100	SMini 2P	K14	MAZD240		SSSMini 2P	K15
MAU2D29		USSMini 2P	K7	MAZ8100G	MA8100	SMini 2P	K14	MAZD240G		SSSMini 2P	K15
MAU2D30		USSMini 2P	K7	MAZ8110	MA8110	SMini 2P	K14	MAZD270		SSSMini 2P	K15
MAYK062D		Mini 5P	K17	MAZ8110G	MA8110	SMini 2P	K14	MAZD270G		SSSMini 2P	K15
MAYS0750Y		SSMini 2P	K17	MAZ8120	MA8120	SMini 2P	K14	MAZD300		SSSMini 2P	K15
MAYS0750Z		SSMini 2P	K17	MAZ8120G	MA8120	SMini 2P	K14	MAZD300G		SSSMini 2P	K15
MAYS075GY		SSMini 2P	K17	MAZ8130	MA8130	SMini 2P	K14	MAZD360		SSSMini 2P	K15
MAYS075GZ		SSMini 2P	K17	MAZ8130G	MA8130	SMini 2P	K14	MAZD360G		SSSMini 2P	K15
MAZ3024	MA3024	Mini 3P	K14	MAZ8140	MA8140	SMini 2P	K14	MAZE062D		SMini 3P	K17
MAZ3027	MA3027	Mini 3P	K14	MAZ8140G	MA8140	SMini 2P	K14	MAZE062DG		SMini 3P	K17
MAZ3030	MA3030	Mini 3P	K14	MAZ8150	MA8150	SMini 2P	K14	MAZL068H		Mini 5P	K16
MAZ3033	MA3033	Mini 3P	K14	MAZ8150G	MA8150	SMini 2P	K14	MAZL082H		Mini 5P	K16
MAZ3036	MA3036	Mini 3P	K14	MAZ8160	MA8160	SMini 2P	K14	MAZL120H		Mini 5P	K16
MAZ3039	MA3039	Mini 3P	K14	MAZ8160G	MA8160	SMini 2P	K14	MAZM062HG		SSMini 5P	K16
MAZ3043	MA3043	Mini 3P	K14	MAZ8180	MA8180	SMini 2P	K14	MAZM068HG		SSMini 5P	K16
MAZ3047	MA3047	Mini 3P	K14	MAZ8180G	MA8180	SMini 2P	K14	MAZM082HG		SSMini 5P	K16
MAZ3051	MA3051	Mini 3P	K14	MAZ8200	MA8200	SMini 2P	K15	MAZM100HG		SSMini 5P	K16
MAZ3056	MA3056	Mini 3P	K14	MAZ8200G	MA8200	SMini 2P	K15	MAZM120HG		SSMini 5P	K16
MAZ3062	MA3062	Mini 3P	K14	MAZ8220	MA8220	SMini 2P	K15	MAZP068H		ML3-N2	K16
MAZ3068	MA3068	Mini 3P	K14	MAZ8220G	MA8220	SMini 2P	K15	MAZP082H		ML3-N2	K16
MAZ3075	MA3075	Mini 3P	K14	MAZ8240	MA8240	SMini 2P	K15	MAZQ062		USSMini 2P	K14
MAZ3082	MA3082	Mini 3P	K14	MAZ8240G	MA8240	SMini 2P	K15	MAZQ068		USSMini 2P	K14
MAZ3091	MA3091	Mini 3P	K14	MAZ8270	MA8270	SMini 2P	K15	MAZQ100		USSMini 2P	K14
MAZ3100	MA3100	Mini 3P	K14	MAZ8270G	MA8270	SMini 2P	K15	MAZQ200		USSMini 2P	K15
MAZ3110	MA3110	Mini 3P	K14	MAZ8300	MA8300	SMini 2P	K15	MAZQ300		USSMini 2P	K15
MAZ3120	MA3120	Mini 3P	K14	MAZ8300G	MA8300	SMini 2P	K15	MAZS024		SSMini 2P	K14
MAZ3130	MA3130	Mini 3P	K14	MAZ8330	MA8330	SMini 2P	K15	MAZS024G		SSMini 2P	K14
MAZ3140	MA3140	Mini 3P	K14	MAZ8330G	MA8330	SMini 2P	K15	MAZS027		SSMini 2P	K14
MAZ3150	MA3150	Mini 3P	K14	MAZ8360	MA8360	SMini 2P	K15	MAZS027G		SSMini 2P	K14
MAZ3160	MA3160	Mini 3P	K14	MAZ8360G	MA8360	SMini 2P	K15	MAZS030		SSMini 2P	K14
MAZ3180	MA3180	Mini 3P	K14	MAZ8390	MA8390	SMini 2P	K15	MAZS030G		SSMini 2P	K14
MAZ3200	MA3200	Mini 3P	K15	MAZ8390G	MA8390	SMini 2P	K15	MAZS033		SSMini 2P	K14
MAZ3220	MA3220	Mini 3P	K15	MAZ9062H		Mini 3P	K16	MAZS033G		SSMini 2P	K14
MAZ3240	MA3240	Mini 3P	K15	MAZ9068H		Mini 3P	K16	MAZS036		SSMini 2P	K14
MAZ3270	MA3270	Mini 3P	K15	MAZ9120H		Mini 3P	K16	MAZS036G		SSMini 2P	K14
MAZ3300	MA3300	Mini 3P	K15	MAZA051		ML2-N1	K14	MAZS039		SSMini 2P	K14
MAZ3330	MA3330	Mini 3P	K15	MAZA056		ML2-N1	K14	MAZS039G		SSMini 2P	K14
MAZ3360	MA3360	Mini 3P	K15	MAZA068		ML2-N1	K14	MAZS043		SSMini 2P	K14

Part Number List

Part No.	C Part No.	Package	Page	Part No.	C Part No.	Package	Page
MAZS043G		SSMini 2P	K14	Voltage Detector			
MAZS047		SSMini 2P	K14				
MAZS047G		SSMini 2P	K14	MN13821S		MINI-3DC	L2
MAZS051		SSMini 2P	K14	MN13822S		MINI-3DC	L2
MAZS051G		SSMini 2P	K14	MN1382S		MINI-3DC	L2
MAZS056		SSMini 2P	K14	Fuses (Circuit Protector Elements)			
MAZS056G		SSMini 2P	K14				
MAZS062		SSMini 2P	K14	UNHZ201		SMini 2P	L2
MAZS062G		SSMini 2P	K14	UNHZ202		SMini 2P	L2
MAZS068		SSMini 2P	K14	UNHZ203		SMini 2P	L2
MAZS068G		SSMini 2P	K14	UNHZ204		SMini 2P	L2
MAZS075		SSMini 2P	K14				
MAZS075G		SSMini 2P	K14				
MAZS082		SSMini 2P	K14				
MAZS082G		SSMini 2P	K14				
MAZS091		SSMini 2P	K14				
MAZS091G		SSMini 2P	K14				
MAZS100		SSMini 2P	K14				
MAZS100G		SSMini 2P	K14				
MAZS110		SSMini 2P	K14				
MAZS110G		SSMini 2P	K14				
MAZS120		SSMini 2P	K14				
MAZS120G		SSMini 2P	K14				
MAZS130		SSMini 2P	K14				
MAZS130G		SSMini 2P	K14				
MAZS150		SSMini 2P	K14				
MAZS150G		SSMini 2P	K14				
MAZS160		SSMini 2P	K14				
MAZS160G		SSMini 2P	K14				
MAZS180		SSMini 2P	K14				
MAZS180G		SSMini 2P	K14				
MAZS200		SSMini 2P	K15				
MAZS200G		SSMini 2P	K15				
MAZS220		SSMini 2P	K15				
MAZS220G		SSMini 2P	K15				
MAZS240		SSMini 2P	K15				
MAZS240G		SSMini 2P	K15				
MAZS270		SSMini 2P	K15				
MAZS270G		SSMini 2P	K15				
MAZS300		SSMini 2P	K15				
MAZS300G		SSMini 2P	K15				
MAZS330		SSMini 2P	K15				
MAZS330G		SSMini 2P	K15				
MAZS360		SSMini 2P	K15				
MAZS360G		SSMini 2P	K15				
MAZS390		SSMini 2P	K15				
MAZS390G		SSMini 2P	K15				
MAZT062H		SSMini 3P	K16				
MAZT062HG		SSMini 3P	K16				
MAZT068H		SSMini 3P	K16				
MAZT068HG		SSMini 3P	K16				
MAZT082H		SSMini 3P	K16				
MAZT082HG		SSMini 3P	K16				
MAZT100HG		SSMini 3P	K16				
MAZT120HG		SSMini 3P	K16				
MAZW062HG		SSSMini 3P	K16				
MAZW068H		SSSMini 3P	K16				
MAZW068HG		SSSMini 3P	K16				
MAZW082H		SSSMini 3P	K16				
MAZW082HG		SSSMini 3P	K16				
MAZW100HG		SSSMini 3P	K16				
MAZW120HG		SSSMini 3P	K16				
MAZZ062H		SMini 5P	K16				
MAZZ068H		SMini 5P	K16				
MAZZ082H		SMini 5P	K16				
MAZZ100H		SMini 5P	K16				
MAZZ120H		SMini 5P	K16				

Part Number List (Alphabetical order)

A

Part No.	C Part No.	Package	Page	Part No.	C Part No.	Package	Page	Part No.	C Part No.	Package	Page	
	2PG001		TO220F	H28	2SB0767G		Mini Power 3P	H23	2SB1548A		TO220D	H25
	2PG002		TO220F	H28	2SB0789G		Mini Power 3P	H24	2SB1574		U	H22
	2PG003		TO220F	H28	2SB0792A	2SB792A	Mini 3P	H9	2SB1592		TO92NL	H23
△	2PG004		TO220D	H28	2SB0873	2SB873	TO92L	H23	2SB1593		MT-3-A1	H22
△	2PG005		TO220D	H28	2SB0928	2SB928	N	H25	2SB1599G		Mini Power 3P	H23
	2PG006		TO220D	H28	2SB0928A	2SB928A	N	H25	2SB1623		TO220D	H25
*	2PG009		TO220D	H28	2SB0930	2SB930	N	H25	2SB1623A		TO220D	H25
	2SA0683	2SA683	TO92L	H23	2SB0930A	2SB930A	N	H25	2SB1679		SMini 3P	H8
	2SA0684	2SA684	TO92L	H23	2SB0931	2SB931	N	H25	2SB1679G		SMini 3P	H8
	2SA0720	2SA720	TO92	H9	2SB0933	2SB933	N	H25	2SB1722G		SSSMini 3P	H8
	2SA0720A	2SA720A	TO92	H9	2SB0934	2SB934	N	H25	2SB1722J		SSMini 3P	H8
	2SA0777	2SA777	TO92L	H23	2SB0936	2SB936	N	H25	2SB1724		TO220D	H25
	2SA0794	2SA794	TO126	H22	2SB0936A	2SB936A	N	H25	2SB1724A		TO220D	H25
	2SA0794A	2SA794A	TO126	H22	2SB0937	2SB937	N	H25	△ 2SB1734		Mini 3P	H9
	2SA0879	2SA879	TO92L	H24	2SB0937A	2SB937A	N	H25	2SC1318		TO92	H9
	2SA0885	2SA885	TO126	H22	2SB0938	2SB938	N	H25	2SC1318A		TO92	H9
	2SA0886	2SA886	TO126	H22	2SB0938A	2SB938A	N	H25	2SC1384		TO92L	H23
	2SA1018		TO92	H9	2SB0939	2SB939	N	H25	2SC1473		TO92	H9
	2SA1022		Mini 3P	H10	2SB0939A	2SB939A	N	H25	2SC1473A		TO92	H9
	2SA1123		TO92	H9	2SB0942	2SB942	TO220F	H25	2SC1509		TO92L	H23
	2SA1309A		NS	H9	2SB0942A	2SB942A	TO220F	H25	2SC1567		TO126	H22
	2SA1532		SMini 3P	H10	2SB0944	2SB944	TO220F	H25	2SC1567A		TO126	H22
	2SA1532G		SMini 3P	H10	2SB0945	2SB945	TO220F	H25	2SC1568		TO126	H22
	2SA1533		TO92NL	H23	2SB0946	2SB946	TO220F	H25	2SC1573		TO92L	H24
	2SA1674		MT-2-A1	H23	2SB0948	2SB948	TO220F	H25	2SC1573A		TO92L	H24
	2SA1738		Mini 3P	H10	2SB0948A	2SB948A	TO220F	H25	2SC1573B		TO92L	H24
	2SA1739		SMini 3P	H10	2SB0951	2SB951	TO220F	H25	2SC1846		TO126	H22
	2SA1739G		SMini 3P	H10	2SB0951A	2SB951A	TO220F	H25	2SC2258		TO126	H22
	2SA1748		SMini 3P	H10	2SB0956G		Mini Power 3P	H23	2SC2295		Mini 3P	H10
	2SA1748G		SMini 3P	H10	2SB0968	2SB968	U	H22	2SC2404		Mini 3P	H10
	2SA1767		TO92	H9	2SB0970	2SB970	Mini 3P	H9	2SC2406		Mini 3P	H9
	2SA1790G		SSMini 3P	H10	2SB1011		TO126	H22	2SC2480		Mini 3P	H10
	2SA1790J		SSMini 3P	H10	2SB1030A		NS	H9	2SC2631		TO92	H9
	2SA1791G		SSMini 3P	H10	2SB1073G		Mini Power 3P	H23	2SC2634		TO92	H9
	2SA1791J		SSMini 3P	H10	2SB1148		I	H26	2SC3063		TO126	H22
	2SA1806G		SSMini 3P	H10	2SB1148A		I	H26	2SC3130		Mini 3P	H10
	2SA1806J		SSMini 3P	H10	2SB1169		I	H26	2SC3311A		NS	H9
	2SA1890G		Mini Power 3P	H23	2SB1169A		I	H26	2SC3312		NS	H9
	2SA2009G		SMini 3P	H8	2SB1172		I	H26	2SC3507		TOP3F	H27
*	2SA2021G		SSSMini 3P	H8	2SB1172A		I	H26	2SC3743		TO220F	H27
	2SA2028		SMini 3P	H8	2SB1174		I	H26	2SC3757		Mini 3P	H10
	2SA2028G		SMini 3P	H8	2SB1175		I	H26	2SC3929A		SMini 3P	H8
	2SA2057		TO220D	H25	2SB1176		I	H26	2SC3930		SMini 3P	H10
	2SA2064		TO220D	H25	2SB1179		I	H26	2SC3930G		SMini 3P	H10
	2SA2067		MT-4-A1	H26	2SB1179A		I	H26	2SC3931		SMini 3P	H10
	2SA2077		Mini 3P	H9	2SB1193		TO220F	H25	2SC3931G		SMini 3P	H10
	2SA2078		SSSMini 3P	H8	2SB1218A		SMini 3P	H8	2SC3932		SMini 3P	H10
	2SA2078G		SSSMini 3P	H8	2SB1218G		SMini 3P	H8	2SC3932G		SMini 3P	H10
	2SA2079		ML3-N2	H8	2SB1219A		SMini 3P	H8	2SC3934		SMini 3P	H10
	2SA2082		ML3-N2	H10	2SB1219G		SMini 3P	H8	2SC3934G		SMini 3P	H10
	2SA2084		Mini 3P	H9	2SB1220		SMini 3P	H8	2SC3935		SMini 3P	H10
	2SA2118		TO220D	H25	2SB1220G		SMini 3P	H8	2SC3935G		SMini 3P	H10
	2SA2122		SMini 3P	H8	2SB1221		TO92NL	H24	2SC3936G		SMini 3P	H10
	2SA2122G		SMini 3P	H8	2SB1299		TO220F	H25	2SC3937G		SMini 3P	H10
	2SA2140		TO220D	H25,H27	2SB1320A		MT-1-A1	H9	2SC3938		SMini 3P	H10
	2SA2161G		SSMini 3P	H8	2SB1321A		MT-1-A1	H9	2SC3938G		SMini 3P	H10
	2SA2161J		SSMini 3P	H8	2SB1322A		MT-2-A1	H23	2SC3939		TO92NL	H23
	2SA2162		SSSMini 3P	H8	2SB1416		MT-3-A1	H22	2SC3940		TO92NL	H23
	2SA2162G		SSSMini 3P	H8	2SB1417A		MT-4-A1	H26	2SC3940A		TO92NL	H23
	2SA2163		ML3-N2	H10	2SB1418		MT-4-A1	H26	2SC3941		TO92NL	H24
	2SA2164		SSSMini 3P	H10	2SB1418A		MT-4-A1	H26	2SC3979		TO220F	H27
	2SA2164G		SSSMini 3P	H10	2SB1434		MT-2-A1	H23	2SC3979A		TO220F	H27
	2SA2174G		SMini 3P	H8	2SB1435		MT-3-A1	H22	2SC4208		TO92NL	H23
	2SA2174J		SSMini 3P	H8	2SB1440G		Mini Power 3P	H23	2SC4208A		TO92NL	H23
	2SB0621A	2SB621A	TO92	H9	2SB1462G		SSMini 3P	H8	2SC4212		TO126	H22
	2SB0709A	2SB709A	Mini 3P	H9	2SB1462J		SSMini 3P	H8	2SC4359		TOP3F	H27
	2SB0710A	2SB710A	Mini 3P	H9	2SB1463G		SSMini 3P	H8	2SC4391		MT-2-A1	H23
	2SB0766G		Mini Power 3P	H23	2SB1463J		SSMini 3P	H8	2SC4410G		SMini 3P	H10

*: Newly listed in this document ▲: Under development △: Tentative

Part Number List (Alphabetical order)

Part No.	C Part No.	Package	Page	Part No.	C Part No.	Package	Page	Part No.	C Part No.	Package	Page
2SC4420		TOP3F	H27	2SD1249A		N	H25	2SD1979		SMini 3P	H8
2SC4559		TO220F	H27	2SD1250		N	H25	2SD1979G		SMini 3P	H8
2SC4562G		SMini 3P	H10	2SD1250A		N	H25	2SD1991A		MT-1-A1	H9
2SC4626G		SSMini 3P	H10	2SD1253		N	H25	2SD1992A		MT-1-A1	H9
2SC4626J		SSMini 3P	H10	2SD1253A		N	H25	2SD1993		MT-1-A1	H9
2SC4627G		SSMini 3P	H10	2SD1257		N	H25	2SD1994A		MT-2-A1	H23
2SC4627J		SSMini 3P	H10	2SD1257A		N	H25	2SD1995		MT-1-A1	H9
2SC4655G		SSMini 3P	H10	2SD1258		N	H25	2SD1996		MT-1-A1	H9
2SC4656G		SSMini 3P	H10	2SD1259		N	H25	2SD2000		TO220F	H25
2SC4691G		SSMini 3P	H10	2SD1260		N	H25	2SD2067		MT-2-A1	H23
2SC4691J		SSMini 3P	H10	2SD1260A		N	H25	2SD2133		MT-3-A1	H22
2SC4805		SMini 3P	H10	2SD1261		N	H25	2SD2136		MT-3-A1	H22
2SC4805G		SMini 3P	H10	2SD1261A		N	H25	2SD2137A		MT-4-A1	H26
2SC4808G		SSMini 3P	H10	2SD1262		N	H25	2SD2138		MT-4-A1	H26
2SC4809G		SSMini 3P	H10	2SD1262A		N	H25	2SD2139		MT-4-A1	H26
2SC4809J		SSMini 3P	H10	2SD1263		TO220F	H25	2SD2151		TO220F	H25
2SC4835		SMini 3P	H10	2SD1263A		TO220F	H25	2SD2177		MT-2-A1	H23
2SC4835G		SMini 3P	H10	2SD1267		TO220F	H25	2SD2177A		MT-2-A1	H23
2SC4953		TO220D	H27	2SD1267A		TO220F	H25	2SD2178		MT-3-A1	H22
2SC5026G		Mini Power 3P	H23	2SD1269		TO220F	H25	2SD2179		MT-2-A1	H23
2SC5104		N	H27	2SD1271		TO220F	H25	2SD2185G		Mini Power 3P	H23
2SC5295G		SSMini 3P	H10	2SD1271A		TO220F	H25	2SD2210G		Mini Power 3P	H23
2SC5295J		SSMini 3P	H10	2SD1272		TO220F	H25	2SD2216G		SSMini 3P	H8
2SC5419		MT-2-A1	H24	2SD1275		TO220F	H25	2SD2216J		SSMini 3P	H8
* 2SC5609G		SSSMini 3P	H8	2SD1275A		TO220F	H25	2SD2220		MT-3-A1	H22
2SC5632G		SMini 3P	H10	2SD1277		TO220F	H25	2SD2225		MT-2-A1	H24
2SC5654		SMini 3P	H8	2SD1277A		TO220F	H25	2SD2240G		SSMini 3P	H8
2SC5654G		SMini 3P	H8	2SD1280G		Mini Power 3P	H23	2SD2240J		SSMini 3P	H8
2SC5739		TO220D	H25	2SD1302		TO92	H9	2SD2258		MT-2-A1	H23
2SC5779		TO220D	H25	2SD1328		Mini 3P	H9	2SD2259		MT-2-A1	H23
2SC5788		MT-4-A1	H26	2SD1423A		NS	H9	2SD2345G		SSMini 3P	H8
2SC5829		ML3-N2	H10	2SD1450		NS	H9	2SD2345J		SSMini 3P	H8
2SC5845		Mini 3P	H9	2SD1474		TO220F	H25	2SD2358		MT-2-A1	H23
2SC5846		SSSMini 3P	H8	2SD1478A		Mini 3P	H9	2SD2374A		TO220D	H25
2SC5846G		SSSMini 3P	H8	2SD1485		TOP3F	H26	2SD2375		TO220D	H25
2SC5848		ML3-N2	H8	2SD1499		TO220F	H25	2SD2413G		Mini Power 3P	H24
2SC5863		Mini 3P	H9	2SD1511G		Mini Power 3P	H23	2SD2420		TO220D	H25
2SC5935		TO220D	H25	2SD1535		TO220F	H25	2SD2420A		TO220D	H25
2SC5939		SSSMini 3P	H10	2SD1611		N	H25	2SD2453		U	H22
2SC5939G		SSSMini 3P	H10	2SD1633		TO220F	H25	2SD2457G		Mini Power 3P	H23
2SC5946		SSSMini 3P	H10	2SD1640		TO126	H22	2SD2459G		Mini Power 3P	H23
2SC5946G		SSSMini 3P	H10	2SD1705		TOP3F	H26	2SD2479		MT-3-A1	H22
2SC5950		SMini 3P	H8	2SD1719		N	H25	2SD2528		TO220D	H25
2SC5950G		SMini 3P	H8	2SD1741		I	H26	2SD2565		MT-2-A1	H24
2SC5993		TO220D	H25,H27	2SD1741A		I	H26	2SD2573		MT-3-A1	H22
2SC6036		SSSMini 3P	H8	2SD1742		I	H26	2SD2598		MT-2-A1	H23
2SC6036G		SSSMini 3P	H8	2SD1742A		I	H26	2SD2620G		SSMini 3P	H8
2SC6037G		SSMini 3P	H8	2SD1745		I	H26	2SD2620J		SSMini 3P	H8
2SC6037J		SSMini 3P	H8	2SD1747		I	H26	2SD2621		SSSMini 3P	H8
2SC6045G		SSSMini 3P	H10	2SD1747A		I	H26	2SD2621G		SSSMini 3P	H8
2SC6050		ML3-N2	H10	2SD1749		I	H26	2SD2623		SMini 3P	H8
2SC6054G		SSMini 3P	H8	2SD1749A		I	H26	2SD2623G		SMini 3P	H8
2SC6054J		SSMini 3P	H8	2SD1750		I	H26	2SD2693		TO220D	H25
2SD0592	2SD592	TO92	H9	2SD1750A		I	H26	2SD2693A		TO220D	H25
2SD0592A	2SD592A	TO92	H9	2SD1754		I	H26	2SD2714		Mini 3P	H9
2SD0601A	2SD601A	Mini 3P	H9	2SD1754A		I	H26	2SJ0163	2SJ163	Mini 3P	H5
2SD0602A	2SD602A	Mini 3P	H9	2SD1755		I	H26	2SJ0164		NS	H5
2SD0814A	2SD814A	Mini 3P	H9	2SD1819A		SMini 3P	H8	2SJ0364	2SJ364	SMini 3P	H5
2SD0874G		Mini Power 3P	H23	2SD1819G		SMini 3P	H8	2SJ0364G		SMini 3P	H5
2SD0875G		Mini Power 3P	H23	2SD1820A		SMini 3P	H8	2SJ0536		SMini 3P	H3
2SD0946A	2SD946A	TO126	H22	2SD1820G		SMini 3P	H8	2SJ0536G		SMini 3P	H3
2SD0946B	2SD946B	TO126	H22	2SD1821A		SMini 3P	H8	2SJ0582		U	H28
2SD0965	2SD965	TO92	H9	2SD1821G		SMini 3P	H8	2SJ0674		SSSMini 3P	H3
2SD0968G		Mini Power 3P	H24	2SD1823		SMini 3P	H8	2SJ0674G		SSSMini 3P	H3
2SD1030		Mini 3P	H9	2SD1823G		SMini 3P	H8	2SK0198	2SK198	Mini 3P	H5
2SD1119G		Mini Power 3P	H23	2SD1824		SMini 3P	H8	2SK0601G		Mini Power 3P	H3
2SD1149		Mini 3P	H9	2SD1824G		SMini 3P	H8	2SK0662	2SK662	SMini 3P	H5
2SD1249		N	H25	2SD1938F		Mini 3P	H9	2SK0662G		SMini 3P	H5

*: Newly listed in this document ▲: Under development △: Tentative

Part Number List (Alphabetical order)

A

Part No.	C Part No.	Package	Page	Part No.	C Part No.	Package	Page	Part No.	C Part No.	Package	Page
2SK0663	2SK663	SMini 3P	H5	MA24D54		T Mini Power 2P	K11	MA2S077		SSMini 2P	K5
2SK0663G		SMini 3P	H5	MA24D58		T Mini Power 2P	K12	MA2S077G		SSMini 2P	K5
2SK0664	2SK664	SMini 3P	H3	MA24D60		T Mini Power 2P	K12	MA2S101		SSMini 2P	K2
2SK0664G		SMini 3P	H3	MA24D62		T Mini Power 2P	K12	MA2S1010G		SSMini 2P	K2
2SK0665	2SK665	SMini 3P	H3	MA24D70		T Mini Power 2P	K11	MA2S111		SSMini 2P	K2
2SK0665G		SMini 3P	H3	MA24F41		T Mini Power 2P	K13	MA2S1110G		SSMini 2P	K2
2SK1228		Mini 3P	H3	MA24F70	△	T Mini Power 2P	K13	MA2S728		SSMini 2P	K6
2SK1374		SMini 3P	H3	MA26077		ML3-N2	K5	MA2S7280G		SSMini 2P	K6
2SK1374G		SMini 3P	H3	MA26111		ML2-N1	K2	MA2S784		SSMini 2P	K7
2SK2211G		Mini Power 3P	H3	MA26728		ML2-N1	K6	MA2S7840G		SSMini 2P	K7
2SK2339		N	H28	MA26P01		ML2-N1	K5	MA2SD10		SSMini 2P	K7
2SK2593G		SSMini 3P	H4	MA26P02		ML2-N1	K5	MA2SD100G		SSMini 2P	K7
2SK2593J		SSMini 3P	H4	MA26P07		ML2-N1	K5	MA2SD19		SSMini 2P	K7
2SK2751		Mini 3P	H5	MA27077		SSSMini 2P	K5	MA2SD190G		SSMini 2P	K7
2SK3022		U	H28	MA27077G		SSSMini 2P	K5	MA2SD24		SSMini 2P	K7
2SK3024		U	H28	MA27111		SSSMini 2P	K2	MA2SD240G		SSMini 2P	K7
2SK3043		TO220D	H28	MA271110G		SSSMini 2P	K2	MA2SD25		SSMini 2P	K7
2SK3045		TO220D	H28	MA27728		SSSMini 2P	K6	MA2SD250G		SSMini 2P	K7
2SK3047		TO220D	H28	MA277280G		SSSMini 2P	K6	MA2SD29		SSMini 2P	K7
2SK3048		TO220D	H28	MA27784		SSSMini 2P	K7	MA2SD290G		SSMini 2P	K7
2SK3064		SMini 3P	H3	MA277840G		SSSMini 2P	K7	MA2SD30		SSMini 2P	K7
2SK3064G		SMini 3P	H3	MA27D27		SSSMini 2P	K6	MA2SD300G		SSMini 2P	K7
2SK3269		TO220C	H28	MA27D270G		SSSMini 2P	K6	MA2SD31		SSMini 2P	K7
2SK3372		SSSMini 3P	H4	MA27D29		SSSMini 2P	K7	MA2SD310G		SSMini 2P	K7
2SK3372G		SSSMini 3P	H4	MA27D290G		SSSMini 2P	K7	MA2SD32		SSMini 2P	K8
2SK3426		SSSMini 3P	H4	MA27D30		SSSMini 2P	K7	MA2SD320G		SSMini 2P	K8
2SK3426G		SSSMini 3P	H4	MA27D300G		SSSMini 2P	K7	MA2SE01		SSMini 2P	K6
2SK3539		SMini 3P	H3	MA27E02		SSSMini 2P	K6	MA2SE010G		SSMini 2P	K6
2SK3539G		SMini 3P	H3	MA27E020G		SSSMini 2P	K6	MA2SP01		SSMini 2P	K5
2SK3546G		SSMini 3P	H3	MA27P01		SSSMini 2P	K5	MA2SP010G		SSMini 2P	K5
2SK3546J		SSMini 3P	H3	MA27P010G		SSSMini 2P	K5	MA2SP02		SSMini 2P	K5
2SK3547		SSSMini 3P	H3	MA27P02		SSSMini 2P	K5	MA2SP020G		SSMini 2P	K5
2SK3547G		SSSMini 3P	H3	MA27P020G		SSSMini 2P	K5	MA2SP05		SSMini 2P	K5
★ 2SK3585G		SSSMini 3P	H4	MA27P06		SSSMini 2P	K5	MA2SP050G		SSMini 2P	K5
2SK3862		TSSSMini 3P	H4	MA27P060G		SSSMini 2P	K5	MA2SP06		SSMini 2P	K5
2SK3862G		TSSSMini 3P	H4	MA27P07		SSSMini 2P	K5	MA2SP060G		SSMini 2P	K5
2SK3866		TSSSMini 3P	H4	MA27P070G		SSSMini 2P	K5	MA2YD15		Mini 2P	K11
2SK3866G		TSSSMini 3P	H4	MA27P11		SSSMini 2P	K5	MA2YD17		Mini 2P	K10
2SK3938		SSSMini 3P	H3	MA27P110G		SSSMini 2P	K5	MA2YD21		Mini 2P	K11
2SK3938G		SSSMini 3P	H3	MA27P12		SSSMini 2P	K5	MA2YD23		Mini 2P	K11
2SK3939		ML3-N2	H2	MA27P120G		SSSMini 2P	K5	MA2YD26		Mini 2P	K10
2SK3948		TSSSMini 3P	H4	MA2DF31		TO220D	K13	MA2YD33		Mini 2P	K10
2SK3948G		TSSSMini 3P	H4	MA2DF60		TO220D	K13	MA2YF80		Mini 2P	K13
2SK3973		SSSMini 3P	H3	MA2DF62		TO220D	K13	★ △ MA2YJ50		Mini 2P	K12
2SK3973G		SSSMini 3P	H3	MA2J111	MA111	SMini 2P	K3	MA2Z001		SMini 2P	K3
2SK3995		TO220C	H28	MA2J1110G	MA111	SMini 2P	K3	MA2Z0010G		SMini 2P	K3
2SK4083		TSSSMini 3P	H4	MA2J112	MA112	SMini 2P	K4	MA2Z720		SMini 2P	K8
2SK4083G		TSSSMini 3P	H4	MA2J1120G	MA112	SMini 2P	K4	MA2Z7200G		SMini 2P	K8
★ 2SK4174		TO220D	H28	MA2J113	MA113	SMini 2P	K4	MA2Z748		SMini 2P	K8
2SK4206		TSSSMini 3P	H4	MA2J1130G	MA113	SMini 2P	K4	MA2Z7480G		SMini 2P	K8
2SK4206G		TSSSMini 3P	H4	MA2J114	MA114	SMini 2P	K3	MA2Z784	MA784	SMini 2P	K7
★ 2SK4208		TO220D	H28	MA2J1140G	MA114	SMini 2P	K3	MA2Z7840G		SMini 2P	K7
MA21D340G		SMini 2P	K11	MA2J115	MA115	SMini 2P	K3	MA2Z785	MA785	SMini 2P	K7
MA21D350G		SMini 2P	K11	MA2J1150G	MA115	SMini 2P	K3	MA2Z7850G		SMini 2P	K7
MA21D380G		SMini 2P	K11	MA2J116	MA116	SMini 2P	K4	MA2ZD02		SMini 2P	K8
MA21D382G		SMini 2P	K11	MA2J1160G	MA116	SMini 2P	K4	MA2ZD020G		SMini 2P	K8
MA22D15		Mini 2P	K11	MA2J704	MA10704	SMini 2P	K7	MA2ZD14		SMini 2P	K6
MA22D17		Mini 2P	K10	MA2J7040G	MA10704	SMini 2P	K7	MA2ZD140G		SMini 2P	K6
MA22D23		Mini 2P	K11	MA2J727		SMini 2P	K8	MA2ZD18		SMini 2P	K8
MA22D26		Mini 2P	K10	MA2J7270G		SMini 2P	K8	MA2ZD180G		SMini 2P	K8
MA22D28		Mini 2P	K11	MA2J728	MA728	SMini 2P	K6	MA36132E		ML3-N2	K2
MA22D39		Mini 2P	K12	MA2J7280G	MA728	SMini 2P	K6	MA3D649	MA6D49	TO220D	K13
MA22D40		Mini 2P	K12	MA2J729	MA729	SMini 2P	K8	MA3D650	MA6D50	TO220D	K13
MA22D41		Mini 2P	K11	MA2J7290G	MA729	SMini 2P	K8	MA3D652	MA6D52	TO220D	K13
MA22F20		Mini 2P	K13	MA2J732	MA732	SMini 2P	K6	MA3D749	MA7D49	TO220D	K12
MA24D50		T Mini Power 2P	K12	MA2J7320G	MA732	SMini 2P	K6	MA3D749A	MA7D49A	TO220D	K12
MA24D51		T Mini Power 2P	K12	MA2JP02		SMini 2P	K5	MA3D750	MA7D50	TO220D	K12
MA24D52		T Mini Power 2P	K12	MA2JP020G		SMini 2P	K5	MA3D750A	MA7D50A	TO220D	K12

★: Newly listed in this document ▲: Under development △: Tentative

Part Number List (Alphabetical order)

Part No.	C Part No.	Package	Page	Part No.	C Part No.	Package	Page	Part No.	C Part No.	Package	Page
MA3D752	MA7D52	TO220D	K12	MA3SE020G		SSMini 3P	K6	MA4Z159	MA4S159	SMini 4P	K3
MA3D752A	MA7D52A	TO220D	K12	MA3U649		U	K13	MA4Z1590G	MA4S159	SMini 4P	K3
MA3D755	MA7D55	TO220D	K12	MA3X100	MA10100	SMini 3P	K3	MA4Z713	MA4S713	SMini 4P	K6
MA3D799	MA10799	TO220D	K12	MA3X1000G		SMini 3P	K3	MA4Z7130G	MA4S713	SMini 4P	K6
△ MA3DD82		TO220D	K12	MA3X152A	MA152A	Mini 3P	K3	MA4ZD03		SMini 4P	K7
MA3DF30		TO220D	K13	MA3X152D	MA152WA	Mini 3P	K3	MA4ZD030G		SMini 4P	K7
MA3DF40		TO220D	K13	MA3X152E	MA152WK	Mini 3P	K3	MA4ZD14		SMini 4P	K6
MA3J142A	MA142A	SMini 3P	K3	MA3X152K	MA152K	Mini 3P	K3	MA4ZD140G		SMini 4P	K6
MA3J142AG		SMini 3P	K3	MA3X153	MA153	Mini 3P	K4	MA5J002D		SMini 5P	K3
MA3J142D	MA142WA	SMini 3P	K3	MA3X153A	MA153A	Mini 3P	K4	MA5J002E		SMini 5P	K3
MA3J142DG		SMini 3P	K3	MA3X157A	MA157A	Mini 3P	K4	★ MA5SD05XG		SSMini 5P	K7
MA3J142E	MA142WK	SMini 3P	K3	MA3X158	MA158	Mini 3P	K3	★ MA5SD29XG		SSMini 5P	K7
MA3J142EG		SMini 3P	K3	MA3X198	MA198	Mini 3P	K4	★ MA5SD30XG		SSMini 5P	K7
MA3J142K	MA142K	SMini 3P	K3	MA3X199	MA199	Mini 3P	K3	MA6J786X		SMini 6P	K9
MA3J142KG		SMini 3P	K3	MA3X701	MA10701	Mini 3P	K10	MA6J786Y		SMini 6P	K9
MA3J143	MA143	SMini 3P	K4	MA3X703	MA10703	Mini 3P	K10	MA6X121	MA121	Mini 6P	K3
MA3J1430G		SMini 3P	K4	MA3X704	MA704	Mini 3P	K9	MA6X122	MA122	Mini 6P	K3
MA3J143A	MA143A	SMini 3P	K4	MA3X704A	MA704A	Mini 3P	K9	MA6X123	MA123	Mini 6P	K3
MA3J143AG		SMini 3P	K4	MA3X704D	MA704WA	Mini 3P	K9	MA6X124	MA124	Mini 6P	K3
MA3J147	MA147	SMini 3P	K4	MA3X704E	MA704WK	Mini 3P	K9	MA6X125	MA125	Mini 6P	K4
MA3J1470G		SMini 3P	K4	MA3X715	MA715	Mini 3P	K9	MA6X126	MA126	Mini 6P	K3
MA3J700	MA10700	SMini 3P	K8	MA3X716	MA716	Mini 3P	K9	MA6X127	MA127	Mini 6P	K3
MA3J7000G		SMini 3P	K8	MA3X717	MA717	Mini 3P	K9	MA6X128	MA128	Mini 6P	K3
MA3J702	MA10702	SMini 3P	K8	MA3X717E	MA717WK	Mini 3P	K9	MA6X129	MA129	Mini 6P	K3
MA3J7020G		SMini 3P	K8	MA3X720	MA720	Mini 3P	K10	MA6X718	MA718	Mini 6P	K9
MA3J741	MA741	SMini 3P	K6	MA3X721	MA721	Mini 3P	K10	MA6Z121	MA6S121	SMini 6P	K3
MA3J7410G		SMini 3P	K6	MA3X721D	MA721WA	Mini 3P	K10	MA6Z718	MA6S718	SMini 6P	K9
MA3J741D	MA741WA	SMini 3P	K6	MA3X721E	MA721WK	Mini 3P	K10	MALD068X		SSSMini 2P	K17
MA3J741DG		SMini 3P	K6	MA3X727	MA727	Mini 3P	K10	MALD068XG		SSSMini 2P	K17
MA3J741E	MA741WK	SMini 3P	K6	MA3X740	MA740	Mini 3P	K10	MALH024YG		SMini 4P	K14
MA3J741EG		SMini 3P	K6	MA3X748	MA748	Mini 3P	K10	MALH027YG		SMini 4P	K14
MA3J742	MA742	SMini 3P	K6	MA3X786	MA786	Mini 3P	K9	MALH030YG		SMini 4P	K14
MA3J7420G		SMini 3P	K6	MA3X786D	MA786WA	Mini 3P	K9	MALH033YG		SMini 4P	K14
MA3J744	MA744	SMini 3P	K8	MA3X786E	MA786WK	Mini 3P	K9	MALH036YG		SMini 4P	K14
MA3J7440G		SMini 3P	K8	MA3X787	MA787	Mini 3P	K9	MALH039YG		SMini 4P	K14
MA3J745E	MA745WK	SMini 3P	K6	MA3X788	MA788	Mini 3P	K10	MALH043YG		SMini 4P	K14
MA3J745EG		SMini 3P	K6	MA3X789	MA789	Mini 3P	K10	MALH047YG		SMini 4P	K14
MA3JP02F		SMini 3P	K5	MA3X791	MA791	Mini 3P	K9	MALH051YG		SMini 4P	K14
MA3JP02FG		SMini 3P	K5	MA3XD11		Mini 3P	K11	MALH056YG		SMini 4P	K14
MA3S132A	MA132A	SSMini 3P	K2	MA3XD15		Mini 3P	K11	MALH062YG		SMini 4P	K14
MA3S132AG		SSMini 3P	K2	MA3XD21		Mini 3P	K11	MALH068YG		SMini 4P	K14
MA3S132D	MA132WA	SSMini 3P	K2	MA3Z792	MA792	SMini 3P	K7	MALH075YG		SMini 4P	K14
MA3S132DG		SSMini 3P	K2	MA3Z7920G		SMini 3P	K7	MALH082YG		SMini 4P	K14
MA3S132E	MA132WK	SSMini 3P	K2	MA3Z792D	MA792WA	SMini 3P	K7	MALH091YG		SMini 4P	K14
MA3S132EG		SSMini 3P	K2	MA3Z792DG		SMini 3P	K7	MALH100YG		SMini 4P	K14
MA3S132K	MA132K	SSMini 3P	K2	MA3Z792E	MA792WK	SMini 3P	K7	MALH110YG		SMini 4P	K14
MA3S132KG		SSMini 3P	K2	MA3Z792EG		SMini 3P	K7	MALH120YG		SMini 4P	K14
MA3S133	MA133	SSMini 3P	K4	MA3Z793	MA793	SMini 3P	K7	MALH130YG		SMini 4P	K14
MA3S1330G		SSMini 3P	K4	MA3Z7930G	MA793	SMini 3P	K7	MALH150YG		SMini 4P	K14
MA3S137	MA137	SSMini 3P	K4	MA3ZD12		SMini 3P	K8	MALH160YG		SMini 4P	K14
MA3S1370G		SSMini 3P	K4	MA3ZD120G		SMini 3P	K8	MALH180YG		SMini 4P	K14
MA3S781	MA781	SSMini 3P	K6	MA4J1130G		SMini 4P	K4	MALH200YG		SMini 4P	K15
MA3S7810G		SSMini 3P	K6	MA4S111		SSMini 4P	K2	MALH220YG		SMini 4P	K15
MA3S781D	MA781WA	SSMini 3P	K6	MA4SD01		SSMini 4P	K6	MALH240YG		SMini 4P	K15
MA3S781DG		SSMini 3P	K6	MA4SD05X		SSMini 4P	K7	MALH270YG		SMini 4P	K15
MA3S781E	MA781WK	SSMini 3P	K6	MA4SD10		SSMini 4P	K7	MALH300YG		SMini 4P	K15
MA3S781EG		SSMini 3P	K6	MA4X159A	MA159A	Mini 4P	K3	MALH330YG		SMini 4P	K15
MA3S781F		SSMini 3P	K6	MA4X160	MA160	Mini 4P	K4	MALH360YG		SMini 4P	K15
MA3S781FG		SSMini 3P	K6	MA4X160A	MA160A	Mini 4P	K3	MALH390YG		SMini 4P	K15
MA3S795E	MA795WK	SSMini 3P	K6	MA4X174	MA174	Mini 4P	K3	MALM062HG		SSMini 5P	K17
MA3S795EG		SSMini 3P	K6	MA4X193	MA193	Mini 4P	K3	MALS062		SSMini 2P	K17
MA3SD05F		SSMini 3P	K7	MA4X194	MA194	Mini 4P	K4	MALS062G		SSMini 2P	K17
MA3SD05FG		SSMini 3P	K7	MA4X713	MA713	Mini 4P	K9	MALS068		SSMini 2P	K17
MA3SD29F		SSMini 3P	K7	MA4X714	MA714	Mini 4P	K9	MALS068G		SSMini 2P	K17
MA3SD29FG		SSMini 3P	K7	MA4X724	MA724	Mini 4P	K10	MALS068X		SSMini 2P	K17
MA3SE01		SSMini 3P	K6	MA4X726	MA726	Mini 4P	K10	MALS068XG		SSMini 2P	K17
MA3SE010G		SSMini 3P	K6	MA4X746	MA746	Mini 4P	K10	MALS160X		SSMini 2P	K17
MA3SE02		SSMini 3P	K6	MA4X796	MA796	Mini 4P	K9	MALS160XG		SSMini 2P	K17

★: Newly listed in this document ▲: Under development △: Tentative

Part Number List (Alphabetical order)

A

Part No.	C Part No.	Package	Page	Part No.	C Part No.	Package	Page	Part No.	C Part No.	Package	Page
MALS180X		SSMini 2P	K17	MAZ8056	MA8056	SMini 2P	K14	MAZD110		SSSMini 2P	K14
MALS180XG		SSMini 2P	K17	MAZ8056G		SMini 2P	K14	MAZD110G		SSSMini 2P	K14
MALTO62H		SSMini 3P	K17	MAZ8062	MA8062	SMini 2P	K14	MAZD120		SSSMini 2P	K14
MALTO62HG		SSMini 3P	K17	MAZ8062G		SMini 2P	K14	MAZD120G		SSSMini 2P	K14
MANV250GE		SMini 2P	K17	MAZ8068	MA8068	SMini 2P	K14	MAZD160		SSSMini 2P	K14
MAS3132D		SSSMini 3P	K2	MAZ8068G		SMini 2P	K14	MAZD160G		SSSMini 2P	K14
MAS3132DG		SSSMini 3P	K2	MAZ8075	MA8075	SMini 2P	K14	MAZD180		SSSMini 2P	K14
MAS3132E		SSSMini 3P	K2	MAZ8075G		SMini 2P	K14	MAZD180G		SSSMini 2P	K14
MAS3132EG		SSSMini 3P	K2	MAZ8082	MA8082	SMini 2P	K14	MAZD200		SSSMini 2P	K15
MAS3795E		SSSMini 3P	K6	MAZ8082G		SMini 2P	K14	MAZD200G		SSSMini 2P	K15
MAS3795EG		SSSMini 3P	K6	MAZ8091	MA8091	SMini 2P	K14	MAZD220		SSSMini 2P	K15
MAU2111		USSMini 2P	K2	MAZ8091G		SMini 2P	K14	MAZD220G		SSSMini 2P	K15
MAU27280G		USSMini 2P	K6	MAZ8100	MA8100	SMini 2P	K14	MAZD240		SSSMini 2P	K15
MAU2D29		USSMini 2P	K7	MAZ8100G		SMini 2P	K14	MAZD240G		SSSMini 2P	K15
MAU2D30		USSMini 2P	K7	MAZ8110	MA8110	SMini 2P	K14	MAZD270		SSSMini 2P	K15
MAYK062D		Mini 5P	K17	MAZ8110G		SMini 2P	K14	MAZD270G		SSSMini 2P	K15
MAYS0750Y		SSMini 2P	K17	MAZ8120	MA8120	SMini 2P	K14	MAZD300		SSSMini 2P	K15
MAYS0750Z		SSMini 2P	K17	MAZ8120G		SMini 2P	K14	MAZD300G		SSSMini 2P	K15
MAYS075GY		SSMini 2P	K17	MAZ8130	MA8130	SMini 2P	K14	MAZD360		SSSMini 2P	K15
MAYS075GZ		SSMini 2P	K17	MAZ8130G		SMini 2P	K14	MAZD360G		SSSMini 2P	K15
MAZ3024	MA3024	Mini 3P	K14	MAZ8140	MA8140	SMini 2P	K14	MAZE062D		SMini 3P	K17
MAZ3027	MA3027	Mini 3P	K14	MAZ8140G		SMini 2P	K14	MAZE062DG		SMini 3P	K17
MAZ3030	MA3030	Mini 3P	K14	MAZ8150	MA8150	SMini 2P	K14	MAZL068H		Mini 5P	K16
MAZ3033	MA3033	Mini 3P	K14	MAZ8150G		SMini 2P	K14	MAZL082H		Mini 5P	K16
MAZ3036	MA3036	Mini 3P	K14	MAZ8160	MA8160	SMini 2P	K14	MAZL120H		Mini 5P	K16
MAZ3039	MA3039	Mini 3P	K14	MAZ8160G		SMini 2P	K14	MAZM062HG		SSMini 5P	K16
MAZ3043	MA3043	Mini 3P	K14	MAZ8180	MA8180	SMini 2P	K14	MAZM068HG		SSMini 5P	K16
MAZ3047	MA3047	Mini 3P	K14	MAZ8180G		SMini 2P	K14	MAZM082HG		SSMini 5P	K16
MAZ3051	MA3051	Mini 3P	K14	MAZ8200	MA8200	SMini 2P	K15	MAZM100HG		SSMini 5P	K16
MAZ3056	MA3056	Mini 3P	K14	MAZ8200G		SMini 2P	K15	MAZM120HG		SSMini 5P	K16
MAZ3062	MA3062	Mini 3P	K14	MAZ8220	MA8220	SMini 2P	K15	MAZP068H		ML3-N2	K16
MAZ3068	MA3068	Mini 3P	K14	MAZ8220G		SMini 2P	K15	MAZP082H		ML3-N2	K16
MAZ3075	MA3075	Mini 3P	K14	MAZ8240	MA8240	SMini 2P	K15	MAZQ062		USSMini 2P	K14
MAZ3082	MA3082	Mini 3P	K14	MAZ8240G		SMini 2P	K15	MAZQ068		USSMini 2P	K14
MAZ3091	MA3091	Mini 3P	K14	MAZ8270	MA8270	SMini 2P	K15	MAZQ100		USSMini 2P	K14
MAZ3100	MA3100	Mini 3P	K14	MAZ8270G		SMini 2P	K15	MAZQ200		USSMini 2P	K15
MAZ3110	MA3110	Mini 3P	K14	MAZ8300	MA8300	SMini 2P	K15	MAZQ300		USSMini 2P	K15
MAZ3120	MA3120	Mini 3P	K14	MAZ8300G		SMini 2P	K15	MAZS024		SSMini 2P	K14
MAZ3130	MA3130	Mini 3P	K14	MAZ8330	MA8330	SMini 2P	K15	MAZS024G		SSMini 2P	K14
MAZ3140	MA3140	Mini 3P	K14	MAZ8330G		SMini 2P	K15	MAZS027		SSMini 2P	K14
MAZ3150	MA3150	Mini 3P	K14	MAZ8360	MA8360	SMini 2P	K15	MAZS027G		SSMini 2P	K14
MAZ3160	MA3160	Mini 3P	K14	MAZ8360G		SMini 2P	K15	MAZS030		SSMini 2P	K14
MAZ3180	MA3180	Mini 3P	K14	MAZ8390	MA8390	SMini 2P	K15	MAZS030G		SSMini 2P	K14
MAZ3200	MA3200	Mini 3P	K15	MAZ8390G		SMini 2P	K15	MAZS033		SSMini 2P	K14
MAZ3220	MA3220	Mini 3P	K15	MAZ9062H		Mini 3P	K16	MAZS033G		SSMini 2P	K14
MAZ3240	MA3240	Mini 3P	K15	MAZ9068H		Mini 3P	K16	MAZS036		SSMini 2P	K14
MAZ3270	MA3270	Mini 3P	K15	MAZ9120H		Mini 3P	K16	MAZS036G		SSMini 2P	K14
MAZ3300	MA3300	Mini 3P	K15	MAZA051		ML2-N1	K14	MAZS039		SSMini 2P	K14
MAZ3330	MA3330	Mini 3P	K15	MAZA056		ML2-N1	K14	MAZS039G		SSMini 2P	K14
MAZ3360	MA3360	Mini 3P	K15	MAZA068		ML2-N1	K14	MAZS043		SSMini 2P	K14
MAZ8024	MA8024	SMini 2P	K14	MAZA082		ML2-N1	K14	MAZS043G		SSMini 2P	K14
MAZ8024G	MA8024	SMini 2P	K14	MAZC062D		Mini 3P	K17	MAZS047		SSMini 2P	K14
MAZ8027	MA8027	SMini 2P	K14	MAZD051		SSSMini 2P	K14	MAZS047G		SSMini 2P	K14
MAZ8027G	MA8027	SMini 2P	K14	MAZD051G		SSSMini 2P	K14	MAZS051		SSMini 2P	K14
MAZ8030	MA8030	SMini 2P	K14	MAZD056		SSSMini 2P	K14	MAZS051G		SSMini 2P	K14
MAZ8030G	MA8030	SMini 2P	K14	MAZD056G		SSSMini 2P	K14	MAZS056		SSMini 2P	K14
MAZ8033	MA8033	SMini 2P	K14	MAZD062		SSSMini 2P	K14	MAZS056G		SSMini 2P	K14
MAZ8033G	MA8033	SMini 2P	K14	MAZD062G		SSSMini 2P	K14	MAZS062		SSMini 2P	K14
MAZ8036	MA8036	SMini 2P	K14	MAZD068		SSSMini 2P	K14	MAZS062G		SSMini 2P	K14
MAZ8036G	MA8036	SMini 2P	K14	MAZD068G		SSSMini 2P	K14	MAZS068		SSMini 2P	K14
MAZ8039	MA8039	SMini 2P	K14	MAZD075		SSSMini 2P	K14	MAZS068G		SSMini 2P	K14
MAZ8039G	MA8039	SMini 2P	K14	MAZD075G		SSSMini 2P	K14	MAZS075		SSMini 2P	K14
MAZ8043	MA8043	SMini 2P	K14	MAZD082		SSSMini 2P	K14	MAZS075G		SSMini 2P	K14
MAZ8043G	MA8043	SMini 2P	K14	MAZD082G		SSSMini 2P	K14	MAZS082		SSMini 2P	K14
MAZ8047	MA8047	SMini 2P	K14	MAZD091		SSSMini 2P	K14	MAZS082G		SSMini 2P	K14
MAZ8047G	MA8047	SMini 2P	K14	MAZD091G		SSSMini 2P	K14	MAZS091		SSMini 2P	K14
MAZ8051	MA8051	SMini 2P	K14	MAZD100		SSSMini 2P	K14	MAZS091G		SSMini 2P	K14
MAZ8051G	MA8051	SMini 2P	K14	MAZD100G		SSSMini 2P	K14	MAZS100		SSMini 2P	K14

*: Newly listed in this document ▲: Under development △: Tentative

Part Number List (Alphabetical order)

Part No.	C Part No.	Package	Page	Part No.	C Part No.	Package	Page	Part No.	C Part No.	Package	Page
MAZS100G		SSMini 2P	K14	MSG430C4		ML3-N2	H11	NP062AM		SSSMini 6P	H18
MAZS110		SSMini 2P	K14	MSG430D4		ML3-N2	H11	NP062AN		SSSMini 6P	H18
MAZS110G		SSMini 2P	K14	MSG56BBA		ML6-N6	H11	NP063D3		SSSMini 6P	H21
MAZS120		SSMini 2P	K14	MSG56BBB		ML6-N6	H11	NP0A456		SSSMini 6P	H13
MAZS120G		SSMini 2P	K14	MTM68410		WMini 8P	H7	NP0A501		SSSMini 6P	H12
MAZS130		SSMini 2P	K14	MTM68411		WMini 8P	H7	NP0G1AE		SSSMini 6P	H19
MAZS130G		SSMini 2P	K14	△ MTM68423		WMini 8P	H7	NP0G3A0		SSSMini 6P	H20
MAZS150		SSMini 2P	K14	MTM76110		WSMini 6P	H3	NP0G3A3		SSSMini 6P	H20
MAZS150G		SSMini 2P	K14	△ MTM76111		WSMini 6P	H3	NP0G3A5		SSSMini 6P	H20
MAZS160		SSMini 2P	K14	MTM76123		WSMini 6P	H3	NP0G3D1		SSSMini 6P	H21
MAZS160G		SSMini 2P	K14	MTM76320		WSMini 6P	H7	NP0G3D2		SSSMini 6P	H21
MAZS180		SSMini 2P	K14	△ MTM76321		WSMini 6P	H7	NP0G3D3		SSSMini 6P	H21
MAZS180G		SSMini 2P	K14	MTM76420		WSMini 6P	H6	NP0H3A3		SSSMini 6P	H20
MAZS200		SSMini 2P	K15	△ MTM76520		WSMini 6P	H7	NP0J1A3		SSSMini 6P	H19
MAZS200G		SSMini 2P	K15	MTM76720		WSMini 6P	H6	UNHZ201		SMini 2P	L2
MAZS220		SSMini 2P	K15	MTM76720		WSMini 6P	J2	UNHZ202		SMini 2P	L2
MAZS220G		SSMini 2P	K15	MTM86124		WSSMini 6P	H2	UNHZ203		SMini 2P	L2
MAZS240		SSMini 2P	K15	MTM86127		WSSMini 6P	H2	UNHZ204		SMini 2P	L2
MAZS240G		SSMini 2P	K15	△ MTM86128		WSSMini 6P	H2	UNR2110	UN2110	Mini 3P	H17
MAZS270		SSMini 2P	K15	MTM86227		WSSMini 6P	H2	UNR2111	UN2111	Mini 3P	H17
MAZS270G		SSMini 2P	K15	MTM86627		WSSMini 6P	H6	UNR2112	UN2112	Mini 3P	H17
MAZS300		SSMini 2P	K15	MTM86627		WSSMini 6P	J2	UNR2113	UN2113	Mini 3P	H17
MAZS300G		SSMini 2P	K15	△ MTM86627A		WSSMini 6P	H6	UNR2114	UN2114	Mini 3P	H17
MAZS330		SSMini 2P	K15	△ MTM86627A		WSSMini 6P	J2	UNR2115	UN2115	Mini 3P	H17
MAZS330G		SSMini 2P	K15	MTM86727		WSSMini 6P	H6	UNR2116	UN2116	Mini 3P	H17
MAZS360		SSMini 2P	K15	MTM86727		WSSMini 6P	J2	UNR2117	UN2117	Mini 3P	H17
MAZS360G		SSMini 2P	K15	MTM98140		SO8-F1	H3	UNR2118	UN2118	Mini 3P	H17
MAZS390		SSMini 2P	K15	△ MTM98240		SO8-F1	H3	UNR2119	UN2119	Mini 3P	H17
MAZS390G		SSMini 2P	K15	MTMC8E28		WMini 8P	H7	UNR211D	UN211D	Mini 3P	H17
MAZT062H		SSMini 3P	K16	MTMC8E2A		WMini 8P	H7	UNR211E	UN211E	Mini 3P	H17
MAZT062HG		SSMini 3P	K16	MTMF8231		SO8-F1	H3	UNR211F	UN211F	Mini 3P	H17
MAZT068H		SSMini 3P	K16	* △ MTMF8233		SO8-F1	H3	UNR211H	UN211H	Mini 3P	H17
MAZT068HG		SSMini 3P	K16	NP041A0		SSSMini 6P	H19	UNR211L	UN211L	Mini 3P	H17
MAZT082H		SSMini 3P	K16	NP041A1		SSSMini 6P	H19	UNR211M	UN211M	Mini 3P	H17
MAZT082HG		SSMini 3P	K16	NP041A2		SSSMini 6P	H19	UNR211N	UN211N	Mini 3P	H17
MAZT100HG		SSMini 3P	K16	NP041A3		SSSMini 6P	H19	UNR211T	UN211T	Mini 3P	H17
MAZT120HG		SSMini 3P	K16	NP041A4		SSSMini 6P	H19	UNR211V	UN211V	Mini 3P	H17
MAZW062HG		SSSMini 3P	K16	NP041A5		SSSMini 6P	H19	UNR211W		Mini 3P	H17
MAZW068H		SSSMini 3P	K16	NP041A6		SSSMini 6P	H19	UNR211Z	UN211Z	Mini 3P	H17
MAZW068HG		SSSMini 3P	K16	NP041A7		SSSMini 6P	H19	UNR2121	UN2121	Mini 3P	H17
MAZW082H		SSSMini 3P	K16	NP042A0		SSSMini 6P	H18	UNR2122	UN2122	Mini 3P	H17
MAZW082HG		SSSMini 3P	K16	NP042A1		SSSMini 6P	H18	UNR2123	UN2123	Mini 3P	H17
MAZW100HG		SSSMini 3P	K16	NP042A2		SSSMini 6P	H18	UNR2124	UN2124	Mini 3P	H17
MAZW120HG		SSSMini 3P	K16	NP042A3		SSSMini 6P	H18	UNR212X	UN212X	Mini 3P	H17
MAZZ062H		SMini 5P	K16	NP042A4		SSSMini 6P	H18	UNR212Y	UN212Y	Mini 3P	H17
MAZZ068H		SMini 5P	K16	NP042A5		SSSMini 6P	H18	UNR2154	UN2154	Mini 3P	H17
MAZZ082H		SMini 5P	K16	NP042A6		SSSMini 6P	H18	UNR2210	UN2210	Mini 3P	H17
MAZZ100H		SMini 5P	K16	NP042A7		SSSMini 6P	H18	UNR2211	UN2211	Mini 3P	H17
MAZZ120H		SMini 5P	K16	NP04390		SSSMini 6P	H21	UNR2212	UN2212	Mini 3P	H17
MN13821S		MINI-3DC	L2	NP043A1		SSSMini 6P	H20	UNR2213	UN2213	Mini 3P	H17
MN13822S		MINI-3DC	L2	NP043A2		SSSMini 6P	H20	UNR2214	UN2214	Mini 3P	H17
MN1382S		MINI-3DC	L2	NP043A3		SSSMini 6P	H20	UNR2215	UN2215	Mini 3P	H17
MSG33001		SSSMini 3P	H11	NP043A4		SSSMini 6P	H20	UNR2216	UN2216	Mini 3P	H17
MSG33002		SSSMini 3P	H11	NP043A5		SSSMini 6P	H20	UNR2217	UN2217	Mini 3P	H17
MSG33003		SSSMini 3P	H11	NP043A6		SSSMini 6P	H20	UNR2218	UN2218	Mini 3P	H17
MSG33004		SSSMini 3P	H11	NP043AN		SSSMini 6P	H20	UNR2219	UN2219	Mini 3P	H17
MSG330C4		SSSMini 3P	H11	NP04401		SSSMini 6P	H13	UNR221D	UN221D	Mini 3P	H17
MSG330D4		SSSMini 3P	H11	NP04501		SSSMini 6P	H12	UNR221E	UN221E	Mini 3P	H17
MSG36C42		SSSMini 6P	H11	NP04601		SSSMini 6P	H13	UNR221F	UN221F	Mini 3P	H17
MSG36D42		SSSMini 6P	H11	NP061A1		SSSMini 6P	H19	UNR221K	UN221K	Mini 3P	H17
MSG36E11		SSSMini 6P	H11	NP061A2		SSSMini 6P	H19	UNR221L	UN221L	Mini 3P	H17
MSG36E31		SSSMini 6P	H11	NP061A3		SSSMini 6P	H19	UNR221M	UN221M	Mini 3P	H17
MSG36E33		SSSMini 6P	H11	NP061A5		SSSMini 6P	H19	UNR221N	UN221N	Mini 3P	H17
MSG36E41		SSSMini 6P	H11	NP061AM		SSSMini 6P	H19	UNR221T	UN221T	Mini 3P	H17
MSG43001		ML3-N2	H11	NP061AN		SSSMini 6P	H19	UNR221V	UN221V	Mini 3P	H17
MSG43002		ML3-N2	H11	NP062A0		SSSMini 6P	H18	UNR221W		Mini 3P	H17
MSG43003		ML3-N2	H11	NP062A1		SSSMini 6P	H18	UNR221Z	UN221Z	Mini 3P	H17
MSG43004		ML3-N2	H11	NP062A3		SSSMini 6P	H18	UNR2221	UN2221	Mini 3P	H17

*: Newly listed in this document ▲: Under development △: Tentative

Part Number List (Alphabetical order)

A

Part No.	C Part No.	Package	Page	Part No.	C Part No.	Package	Page	Part No.	C Part No.	Package	Page
UNR2222	UN2222	Mini 3P	H17	UNR32AF		SSSMini 3P	H14	UNR5118		SMini 3P	H16
UNR2223	UN2223	Mini 3P	H17	UNR32AFG		SSSMini 3P	H14	UNR5118G		SMini 3P	H16
UNR2224	UN2224	Mini 3P	H17	UNR32AL		SSSMini 3P	H14	UNR5119		SMini 3P	H16
UNR2225	UN2225	Mini 3P	H17	UNR32ALG		SSSMini 3P	H14	UNR5119G		SMini 3P	H16
UNR2226	UN2226	Mini 3P	H17	UNR32AM		SSSMini 3P	H14	UNR511D		SMini 3P	H16
UNR2227	UN2227	Mini 3P	H17	UNR32AMG		SSSMini 3P	H14	UNR511DG		SMini 3P	H16
UNR31A0		SSSMini 3P	H14	UNR32AN		SSSMini 3P	H14	UNR511E		SMini 3P	H16
UNR31A0G		SSSMini 3P	H14	UNR32ANG		SSSMini 3P	H14	UNR511EG		SMini 3P	H16
UNR31A1		SSSMini 3P	H14	UNR32AT		SSSMini 3P	H14	UNR511F		SMini 3P	H16
UNR31A1G		SSSMini 3P	H14	UNR32ATG		SSSMini 3P	H14	UNR511FG		SMini 3P	H16
UNR31A2		SSSMini 3P	H14	UNR32AV		SSSMini 3P	H14	UNR511H		SMini 3P	H16
UNR31A2G		SSSMini 3P	H14	UNR32AVG		SSSMini 3P	H14	UNR511HG		SMini 3P	H16
UNR31A3		SSSMini 3P	H14	UNR4110	UN4110	NS	H17	UNR511L		SMini 3P	H16
UNR31A3G		SSSMini 3P	H14	UNR4111	UN4111	NS	H17	UNR511LG		SMini 3P	H16
UNR31A4		SSSMini 3P	H14	UNR4112	UN4112	NS	H17	UNR511M		SMini 3P	H16
UNR31A4G		SSSMini 3P	H14	UNR4113	UN4113	NS	H17	UNR511MG		SMini 3P	H16
UNR31A5		SSSMini 3P	H14	UNR4114	UN4114	NS	H17	UNR511N		SMini 3P	H16
UNR31A5G		SSSMini 3P	H14	UNR4115	UN4115	NS	H17	UNR511NG		SMini 3P	H16
UNR31A6		SSSMini 3P	H14	UNR4116	UN4116	NS	H17	UNR511T		SMini 3P	H16
UNR31A6G		SSSMini 3P	H14	UNR4117	UN4117	NS	H17	UNR511TG		SMini 3P	H16
UNR31A7		SSSMini 3P	H14	UNR4118	UN4118	NS	H17	UNR511V		SMini 3P	H16
UNR31A7G		SSSMini 3P	H14	UNR4119	UN4119	NS	H17	UNR511VG		SMini 3P	H16
UNR31A8		SSSMini 3P	H14	UNR411D	UN411D	NS	H17	UNR511Z		SMini 3P	H16
UNR31A8G		SSSMini 3P	H14	UNR411E	UN411E	NS	H17	UNR511ZG		SMini 3P	H16
UNR31A9		SSSMini 3P	H14	UNR411F	UN411F	NS	H17	UNR5154		SMini 3P	H16
UNR31A9G		SSSMini 3P	H14	UNR411H	UN411H	NS	H17	UNR5154G		SMini 3P	H16
UNR31AA		SSSMini 3P	H14	UNR411L	UN411L	NS	H17	UNR5174		SMini 3P	H16
UNR31AAG		SSSMini 3P	H14	UNR411M		NS	H17	UNR5174G		SMini 3P	H16
UNR31AE		SSSMini 3P	H14	UNR411N		NS	H17	UNR51A0G		SMini 3P	H15
UNR31AEG		SSSMini 3P	H14	UNR4121	UN4121	NS	H17	UNR51A1G		SMini 3P	H15
UNR31AF		SSSMini 3P	H14	UNR4122	UN4122	NS	H17	UNR51A2G		SMini 3P	H15
UNR31AFG		SSSMini 3P	H14	UNR4123	UN4123	NS	H17	UNR51A3G		SMini 3P	H15
UNR31AH		SSSMini 3P	H14	UNR4124	UN4124	NS	H17	UNR51A4G		SMini 3P	H15
UNR31AHG		SSSMini 3P	H14	UNR4210	UN4210	NS	H17	UNR51A5G		SMini 3P	H15
UNR31AL		SSSMini 3P	H14	UNR4211	UN4211	NS	H17	UNR51A6G		SMini 3P	H15
UNR31ALG		SSSMini 3P	H14	UNR4212	UN4212	NS	H17	UNR51A7G		SMini 3P	H15
UNR31AM		SSSMini 3P	H14	UNR4213	UN4213	NS	H17	UNR51A8G		SMini 3P	H15
UNR31AMG		SSSMini 3P	H14	UNR4214	UN4214	NS	H17	UNR51A9G		SMini 3P	H15
UNR31AN		SSSMini 3P	H14	UNR4215	UN4215	NS	H17	UNR51AAG		SMini 3P	H15
UNR31ANG		SSSMini 3P	H14	UNR4216	UN4216	NS	H17	UNR51AEG		SMini 3P	H15
UNR31AT		SSSMini 3P	H14	UNR4217	UN4217	NS	H17	UNR51AFG		SMini 3P	H15
UNR31ATG		SSSMini 3P	H14	UNR4218	UN4218	NS	H17	UNR51AHG		SMini 3P	H15
UNR31AV		SSSMini 3P	H14	UNR4219	UN4219	NS	H17	UNR51ALG		SMini 3P	H15
UNR31AVG		SSSMini 3P	H14	UNR421D	UN421D	NS	H17	UNR51AMG		SMini 3P	H15
UNR32A0		SSSMini 3P	H14	UNR421E	UN421E	NS	H17	UNR51ANG		SMini 3P	H15
UNR32A0G		SSSMini 3P	H14	UNR421F	UN421F	NS	H17	UNR51ATG		SMini 3P	H15
UNR32A1		SSSMini 3P	H14	UNR421K	UN421K	NS	H17	UNR51AVG		SMini 3P	H15
UNR32A1G		SSSMini 3P	H14	UNR421L	UN421L	NS	H17	UNR5210		SMini 3P	H16
UNR32A2		SSSMini 3P	H14	UNR4221	UN4221	NS	H17	UNR5210G		SMini 3P	H16
UNR32A2G		SSSMini 3P	H14	UNR4222	UN4222	NS	H17	UNR5211		SMini 3P	H16
UNR32A3		SSSMini 3P	H14	UNR4223	UN4223	NS	H17	UNR5211G		SMini 3P	H16
UNR32A3G		SSSMini 3P	H14	UNR4224	UN4224	NS	H17	UNR5212		SMini 3P	H16
UNR32A4		SSSMini 3P	H14	UNR5110		SMini 3P	H16	UNR5212G		SMini 3P	H16
UNR32A4G		SSSMini 3P	H14	UNR5110G		SMini 3P	H16	UNR5213		SMini 3P	H16
UNR32A5		SSSMini 3P	H14	UNR5111		SMini 3P	H16	UNR5213G		SMini 3P	H16
UNR32A5G		SSSMini 3P	H14	UNR5111G		SMini 3P	H16	UNR5214		SMini 3P	H16
UNR32A6		SSSMini 3P	H14	UNR5112		SMini 3P	H16	UNR5214G		SMini 3P	H16
UNR32A6G		SSSMini 3P	H14	UNR5112G		SMini 3P	H16	UNR5215		SMini 3P	H16
UNR32A7		SSSMini 3P	H14	UNR5113		SMini 3P	H16	UNR5215G		SMini 3P	H16
UNR32A7G		SSSMini 3P	H14	UNR5113G		SMini 3P	H16	UNR5216		SMini 3P	H16
UNR32A8		SSSMini 3P	H14	UNR5114		SMini 3P	H16	UNR5216G		SMini 3P	H16
UNR32A8G		SSSMini 3P	H14	UNR5114G		SMini 3P	H16	UNR5217		SMini 3P	H16
UNR32A9		SSSMini 3P	H14	UNR5115		SMini 3P	H16	UNR5217G		SMini 3P	H16
UNR32A9G		SSSMini 3P	H14	UNR5115G		SMini 3P	H16	UNR5218		SMini 3P	H16
UNR32AA		SSSMini 3P	H14	UNR5116		SMini 3P	H16	UNR5218G		SMini 3P	H16
UNR32AAG		SSSMini 3P	H14	UNR5116G		SMini 3P	H16	UNR5219		SMini 3P	H16
UNR32AE		SSSMini 3P	H14	UNR5117		SMini 3P	H16	UNR5219G		SMini 3P	H16
UNR32AEG		SSSMini 3P	H14	UNR5117G		SMini 3P	H16	UNR521D		SMini 3P	H16

*: Newly listed in this document ▲: Under development △: Tentative

Part Number List (Alphabetical order)

Part No.	C Part No.	Package	Page	Part No.	C Part No.	Package	Page	Part No.	C Part No.	Package	Page
UNR521DG		SMini 3P	H16	UNR911CJ		SSMini 3P	H16	UNR9216J	UN9216J	SSMini 3P	H16
UNR521E		SMini 3P	H16	UNR911DG		SSMini 3P	H16	UNR9217G		SSMini 3P	H16
UNR521EG		SMini 3P	H16	UNR911DJ	UN911DJ	SSMini 3P	H16	UNR9217J	UN9217J	SSMini 3P	H16
UNR521F		SMini 3P	H16	UNR911EG		SSMini 3P	H16	UNR9218G		SSMini 3P	H16
UNR521FG		SMini 3P	H16	UNR911EJ	UN911EJ	SSMini 3P	H16	UNR9218J	UN9218J	SSMini 3P	H16
UNR521K		SMini 3P	H16	UNR911FG		SSMini 3P	H16	UNR9219G		SSMini 3P	H16
UNR521KG		SMini 3P	H16	UNR911FJ	UN911FJ	SSMini 3P	H16	UNR9219J	UN9219J	SSMini 3P	H16
UNR521L		SMini 3P	H16	UNR911HG		SSMini 3P	H16	UNR921AG		SSMini 3P	H16
UNR521LG		SMini 3P	H16	UNR911HJ	UN911HJ	SSMini 3P	H16	UNR921AJ		SSMini 3P	H16
UNR521M		SMini 3P	H16	UNR911LG		SSMini 3P	H16	UNR921BG		SSMini 3P	H16
UNR521MG		SMini 3P	H16	UNR911LJ	UN911LJ	SSMini 3P	H16	UNR921BJ		SSMini 3P	H16
UNR521N		SMini 3P	H16	UNR911MG		SSMini 3P	H16	UNR921CG		SSMini 3P	H16
UNR521NG		SMini 3P	H16	UNR911MJ	UN911MJ	SSMini 3P	H16	UNR921CJ		SSMini 3P	H16
UNR521T		SMini 3P	H16	UNR911NG		SSMini 3P	H16	UNR921DG		SSMini 3P	H16
UNR521TG		SMini 3P	H16	UNR911NJ		SSMini 3P	H16	UNR921DJ	UN921DJ	SSMini 3P	H16
UNR521V		SMini 3P	H16	UNR911TG		SSMini 3P	H16	UNR921EG		SSMini 3P	H16
UNR521VG		SMini 3P	H16	UNR911TJ	UN911TJ	SSMini 3P	H16	UNR921EJ	UN921EJ	SSMini 3P	H16
UNR521W		SMini 3P	H16	UNR911VG		SSMini 3P	H16	UNR921FG		SSMini 3P	H16
UNR521WG		SMini 3P	H16	UNR911VJ	UN911VJ	SSMini 3P	H16	UNR921FJ	UN921FJ	SSMini 3P	H16
UNR521Z		SMini 3P	H16	UNR91A0G		SSMini 3P	H15	UNR921KG		SSMini 3P	H16
UNR521ZG		SMini 3P	H16	UNR91A0J		SSMini 3P	H15	UNR921KJ	UN921KJ	SSMini 3P	H16
UNR5225		SMini 3P	H16	UNR91A1G		SSMini 3P	H15	UNR921LG		SSMini 3P	H16
UNR5225G		SMini 3P	H16	UNR91A1J		SSMini 3P	H15	UNR921LJ	UN921LJ	SSMini 3P	H16
UNR5226		SMini 3P	H16	UNR91A2G		SSMini 3P	H15	UNR921MG		SSMini 3P	H16
UNR5226G		SMini 3P	H16	UNR91A2J		SSMini 3P	H15	UNR921MJ	UN921MJ	SSMini 3P	H16
UNR52A0G		SMini 3P	H15	UNR91A3G		SSMini 3P	H15	UNR921NG		SSMini 3P	H16
UNR52A1G		SMini 3P	H15	UNR91A3J		SSMini 3P	H15	UNR921NJ		SSMini 3P	H16
UNR52A2G		SMini 3P	H15	UNR91A4G		SSMini 3P	H15	UNR921TG		SSMini 3P	H16
UNR52A3G		SMini 3P	H15	UNR91A4J		SSMini 3P	H15	UNR921TJ	UN921TJ	SSMini 3P	H16
UNR52A4G		SMini 3P	H15	UNR91A5G		SSMini 3P	H15	UNR921VG		SSMini 3P	H16
UNR52A5G		SMini 3P	H15	UNR91A5J		SSMini 3P	H15	UNR921VJ		SSMini 3P	H16
UNR52A6G		SMini 3P	H15	UNR91A6G		SSMini 3P	H15	UNR92A0G		SSMini 3P	H15
UNR52A7G		SMini 3P	H15	UNR91A6J		SSMini 3P	H15	UNR92A0J		SSMini 3P	H15
UNR52A8G		SMini 3P	H15	UNR91A7G		SSMini 3P	H15	UNR92A1G		SSMini 3P	H15
UNR52A9G		SMini 3P	H15	UNR91A7J		SSMini 3P	H15	UNR92A1J		SSMini 3P	H15
UNR52AAG		SMini 3P	H15	UNR91A9G		SSMini 3P	H15	UNR92A2G		SSMini 3P	H15
UNR52AEG		SMini 3P	H15	UNR91A9J		SSMini 3P	H15	UNR92A2J		SSMini 3P	H15
UNR52AFG		SMini 3P	H15	UNR91AAG		SSMini 3P	H15	UNR92A3G		SSMini 3P	H15
UNR52ALG		SMini 3P	H15	UNR91AAJ		SSMini 3P	H15	UNR92A3J		SSMini 3P	H15
UNR52AMG		SMini 3P	H15	UNR91AEG		SSMini 3P	H15	UNR92A4G		SSMini 3P	H15
UNR52ANG		SMini 3P	H15	UNR91AEJ		SSMini 3P	H15	UNR92A4J		SSMini 3P	H15
UNR52ATG		SMini 3P	H15	UNR91AFG		SSMini 3P	H15	UNR92A5G		SSMini 3P	H15
UNR52AVG		SMini 3P	H15	UNR91AFJ		SSMini 3P	H15	UNR92A5J		SSMini 3P	H15
UNR9110G		SSMini 3P	H16	UNR91AHG		SSMini 3P	H15	UNR92A6G		SSMini 3P	H15
UNR9110J	UN9110J	SSMini 3P	H16	UNR91AHJ		SSMini 3P	H15	UNR92A6J		SSMini 3P	H15
UNR9111G		SSMini 3P	H16	UNR91ALG		SSMini 3P	H15	UNR92A7G		SSMini 3P	H15
UNR9111J	UN9111J	SSMini 3P	H16	UNR91ALJ		SSMini 3P	H15	UNR92A7J		SSMini 3P	H15
UNR9112G		SSMini 3P	H16	UNR91AMG		SSMini 3P	H15	UNR92A8G		SSMini 3P	H15
UNR9112J	UN9112J	SSMini 3P	H16	UNR91AMJ		SSMini 3P	H15	UNR92A8J		SSMini 3P	H15
UNR9113G		SSMini 3P	H16	UNR91ANG		SSMini 3P	H15	UNR92A9G		SSMini 3P	H15
UNR9113J	UN9113J	SSMini 3P	H16	UNR91ANJ		SSMini 3P	H15	UNR92A9J		SSMini 3P	H15
UNR9114G		SSMini 3P	H16	UNR91ATG		SSMini 3P	H15	UNR92AAG		SSMini 3P	H15
UNR9114J	UN9114J	SSMini 3P	H16	UNR91ATJ		SSMini 3P	H15	UNR92AAJ		SSMini 3P	H15
UNR9115G		SSMini 3P	H16	UNR91AVG		SSMini 3P	H15	UNR92AEG		SSMini 3P	H15
UNR9115J	UN9115J	SSMini 3P	H16	UNR91AVJ		SSMini 3P	H15	UNR92AEJ		SSMini 3P	H15
UNR9116G		SSMini 3P	H16	UNR9210G		SSMini 3P	H16	UNR92AFG		SSMini 3P	H15
UNR9116J	UN9116J	SSMini 3P	H16	UNR9210J	UN9210J	SSMini 3P	H16	UNR92AFJ		SSMini 3P	H15
UNR9117G		SSMini 3P	H16	UNR9211G		SSMini 3P	H16	UNR92ALG		SSMini 3P	H15
UNR9117J	UN9117J	SSMini 3P	H16	UNR9211J	UN9211J	SSMini 3P	H16	UNR92ALJ		SSMini 3P	H15
UNR9118G		SSMini 3P	H16	UNR9212G		SSMini 3P	H16	UNR92AMG		SSMini 3P	H15
UNR9118J	UN9118J	SSMini 3P	H16	UNR9212J	UN9212J	SSMini 3P	H16	UNR92AMJ		SSMini 3P	H15
UNR9119G		SSMini 3P	H16	UNR9213G		SSMini 3P	H16	UNR92ANG		SSMini 3P	H15
UNR9119J	UN9119J	SSMini 3P	H16	UNR9213J	UN9213J	SSMini 3P	H16	UNR92ANJ		SSMini 3P	H15
UNR911AG		SSMini 3P	H16	UNR9214G		SSMini 3P	H16	UNR92ATG		SSMini 3P	H15
UNR911AJ	UN911AJ	SSMini 3P	H16	UNR9214J	UN9214J	SSMini 3P	H16	UNR92ATJ		SSMini 3P	H15
UNR911BG		SSMini 3P	H16	UNR9215G		SSMini 3P	H16	UNR92AVG		SSMini 3P	H15
UNR911BJ	UN911BJ	SSMini 3P	H16	UNR9215J	UN9215J	SSMini 3P	H16	UNR92AVJ		SSMini 3P	H15
UNR911CG		SSMini 3P	H16	UNR9216G		SSMini 3P	H16	UNRF1A0		ML3-N2	H14

*: Newly listed in this document ▲: Under development △: Tentative

Part Number List (Alphabetical order)

A

Part No.	C Part No.	Package	Page	Part No.	C Part No.	Package	Page	Part No.	C Part No.	Package	Page
UNRF1A1		ML3-N2	H14	UP04116		SSMini 6P	H19	★ UP04A8MG		SSMini 6P	H21
UNRF1A2		ML3-N2	H14	UP04116G		SSMini 6P	H19	UP05C8B		SSMini 6P	J2
UNRF1A3		ML3-N2	H14	UP04117G		SSMini 6P	H19	UP05C8BG		SSMini 6P	J2
UNRF1A4		ML3-N2	H14	UP0411M		SSMini 6P	H19	UP05C8G		SSMini 6P	J2
UNRF1A5		ML3-N2	H14	UP0411MG		SSMini 6P	H19	UP05C8GF		SSMini 6P	J2
UNRF1A6		ML3-N2	H14	★ UP0411TG		SSMini 6P	H19	UP05C8GG		SSMini 6P	J2
UNRF1A7		ML3-N2	H14	UP04210		SSMini 6P	H18	UP05C8P		SSMini 6P	J2
UNRF1A9		ML3-N2	H14	UP04210G		SSMini 6P	H18	UP05C8PG		SSMini 6P	J2
UNRF1AA		ML3-N2	H14	UP04211		SSMini 6P	H18	△ UP06501G		SSMini 6P	H12
UNRF1AF		ML3-N2	H14	UP04211G		SSMini 6P	H18	UP0KG8D		SSMini 5P	J2
UNRF1AH		ML3-N2	H14	UP04212		SSMini 6P	H18	UP0KG8DG		SSMini 6P	J2
UNRF1AL		ML3-N2	H14	UP04212G		SSMini 6P	H18	XN01110		Mini 5P	H19
UNRF1AM		ML3-N2	H14	UP04213		SSMini 6P	H18	XN01111	XN1111	Mini 5P	H19
UNRF1AN		ML3-N2	H14	UP04213G		SSMini 6P	H18	XN01112	XN1112	Mini 5P	H19
UNRF1AT		ML3-N2	H14	UP04214		SSMini 6P	H18	XN01113	XN1113	Mini 5P	H19
UNRF2A0		ML3-N2	H14	UP04214G		SSMini 6P	H18	XN01114	XN1114	Mini 5P	H19
UNRF2A1		ML3-N2	H14	UP04215		SSMini 6P	H18	XN01115	XN1115	Mini 5P	H19
UNRF2A2		ML3-N2	H14	UP04215G		SSMini 6P	H18	XN01116	XN1116	Mini 5P	H19
UNRF2A3		ML3-N2	H14	UP04216		SSMini 6P	H18	XN01119	XN1119	Mini 5P	H19
UNRF2A4		ML3-N2	H14	UP04216G		SSMini 6P	H18	XN0111F	XN111F	Mini 5P	H19
UNRF2A5		ML3-N2	H14	UP04217		SSMini 6P	H18	XN0111H	XN111H	Mini 5P	H19
UNRF2A6		ML3-N2	H14	UP04217G		SSMini 6P	H18	XN0111M	XN111M	Mini 5P	H19
UNRF2A7		ML3-N2	H14	UP0421N		SSMini 6P	H18	XN01210	XN1210	Mini 5P	H18
UNRF2A8		ML3-N2	H14	UP0421NG		SSMini 6P	H18	XN01211	XN1211	Mini 5P	H18
UNRF2A9		ML3-N2	H14	UP04311		SSMini 6P	H20	XN01212	XN1212	Mini 5P	H18
UNRF2AF		ML3-N2	H14	UP04311G		SSMini 6P	H20	XN01213	XN1213	Mini 5P	H18
UNRF2AK		ML3-N2	H14	UP04312		SSMini 6P	H20	XN01214	XN1214	Mini 5P	H18
UNRF2AL		ML3-N2	H14	UP04312G		SSMini 6P	H20	XN01215	XN1215	Mini 5P	H18
UNRF2AM		ML3-N2	H14	UP04313		SSMini 6P	H20	XN01216	XN1216	Mini 5P	H18
UNRF2AN		ML3-N2	H14	UP04313G		SSMini 6P	H20	XN0121E	XN121E	Mini 5P	H18
UNRF2AT		ML3-N2	H14	UP04314		SSMini 6P	H20	XN01401	XN1401	Mini 5P	H13
UNRF2AV		ML3-N2	H14	UP04314G		SSMini 6P	H20	XN01501	XN1501	Mini 5P	H12
UP01113		SSMini 5P	H19	UP04315		SSMini 6P	H20	XN01531	XN1531	Mini 5P	H12
UP01113G		SSMini 5P	H19	UP04315G		SSMini 6P	H20	XN01558		Mini 5P	H12
UP0111FG		SSMini 5P	H19	UP04316		SSMini 6P	H20	XN01601	XN1601	Mini 5P	H13
★ UP01211G		SSMini 5P	H18	UP04316G		SSMini 6P	H20	XN01602		Mini 5P	H13
UP01212		SSMini 5P	H18	★ UP0431MG		SSMini 6P	H20	XN01872	XN1872	Mini 5P	H4
UP01212G		SSMini 5P	H18	UP0431N		SSMini 6P	H20	XN02401	XN2401	Mini 5P	H13
UP01213		SSMini 5P	H18	UP0431NG		SSMini 6P	H20	XN02501	XN2501	Mini 5P	H12
UP01213G		SSMini 5P	H18	★ UP0431TG		SSMini 6P	H20	XN04111	XN4111	Mini 6P	H19
UP01214		SSMini 5P	H18	UP04383G		SSMini 6P	H21	XN04112	XN4112	Mini 6P	H19
UP01214G		SSMini 5P	H18	UP04387		SSMini 6P	H21	XN04113	XN4113	Mini 6P	H19
★ UP0121EG		SSMini 5P	H18	UP04387G		SSMini 6P	H21	XN04114	XN4114	Mini 6P	H19
UP0121M		SSMini 5P	H18	UP04390		SSMini 6P	H21	XN04115	XN4115	Mini 6P	H19
UP0121MG		SSMini 5P	H18	UP04390G		SSMini 6P	H21	XN04116	XN4116	Mini 6P	H19
UP01878		SSMini 5P	H4	UP04401		SSMini 6P	H13	XN04130	XN4130	Mini 6P	H19
★ UP01878G		SSMini 5P	H4	UP04401G		SSMini 6P	H13	XN04210	XN4210	Mini 6P	H18
UP0187B		SSMini 5P	H4	UP04501		SSMini 6P	H12	XN04211	XN4211	Mini 6P	H18
UP0187BG		SSMini 5P	H4	UP04501G		SSMini 6P	H12	XN04212	XN4212	Mini 6P	H18
★ UP03311G		SSMini 5P	H20	★ UP04532G		SSMini 6P	H12	XN04213	XN4213	Mini 6P	H18
UP03312		SSMini 5P	H20	UP04534		SSMini 6P	H12	XN04214	XN4214	Mini 6P	H18
UP03312G		SSMini 5P	H20	UP04534G		SSMini 6P	H12	XN04215	XN4215	Mini 6P	H18
UP03383		SSMini 5P	H21	UP04598		SSMini 6P	H12	XN04216	XN4216	Mini 6P	H18
UP03383G		SSMini 5P	H21	UP04598G		SSMini 6P	H12	XN0421F	XN421F	Mini 6P	H18
UP03390		SSMini 5P	H21	UP04599		SSMini 6P	H12	XN0421L	XN421L	Mini 6P	H18
UP03390G		SSMini 5P	H21	UP04599G		SSMini 6P	H12	XN04311	XN4311	Mini 6P	H20
UP03394		SSMini 5P	H21	UP04601		SSMini 6P	H13	XN04312	XN4312	Mini 6P	H20
UP03394G		SSMini 5P	H21	UP04601G		SSMini 6P	H13	XN04314	XN4314	Mini 6P	H20
UP03396		SSMini 5P	H21	UP04878		SSMini 6P	H5	XN04315	XN4315	Mini 6P	H20
UP03396G		SSMini 5P	H21	UP04878G		SSMini 6P	H5	XN04316	XN4316	Mini 6P	H20
UP03397		SSMini 5P	H21	UP0487B		SSMini 6P	H5	XN04322	XN4322	Mini 6P	H20
UP03397G		SSMini 5P	H21	UP0487BG		SSMini 6P	H5	XN04381	XN4381	Mini 6P	H21
UP04111		SSMini 6P	H19	UP0487C		SSMini 6P	H5	XN04401	XN4401	Mini 6P	H13
UP04111G		SSMini 6P	H19	UP0487CG		SSMini 6P	H5	XN04402	XN4402	Mini 6P	H13
UP04112		SSMini 6P	H19	UP04979		SSMini 6P	H5	XN04404	XN4404	Mini 6P	H13
UP04112G		SSMini 6P	H19	UP04979G		SSMini 6P	H5	XN04482	XN4482	Mini 6P	H13
UP04113		SSMini 6P	H19	UP0497A		SSMini 6P	H5	XN04501	XN4501	Mini 6P	H12
UP04113G		SSMini 6P	H19	UP0497AG		SSMini 6P	H5	XN04502	XN4502	Mini 6P	H12

★: Newly listed in this document ▲: Under development △: Tentative

Part Number List (Alphabetical order)

Part No.	C Part No.	Package	Page	Part No.	C Part No.	Package	Page
XN04504	XN4504	Mini 6P	H12	XP03312		SMini 5P	H20
XN04505	XN4505	Mini 6P	H12	XP03316		SMini 5P	H20
XN04506	XN4506	Mini 6P	H12	XP03383		SMini 5P	H21
XN04556	XN4556	Mini 6P	H12	XP03389		SMini 5P	H21
XN04601	XN4601	Mini 6P	H13	XP03390		SMini 5P	H21
XN04602		Mini 6P	H13	XP03391		SMini 5P	H21
XN04604	XN4604	Mini 6P	H13	XP04111	XP4111	SMini 6P	H19
XN04608	XN4608	Mini 6P	H13	XP04112	XP4112	SMini 6P	H19
XN04609	XN4609	Mini 6P	H13	XP04113	XP4113	SMini 6P	H19
XN04A88		Mini 6P	H21	XP04114	XP4114	SMini 6P	H19
XN05501	XN5501	Mini 6P	H12	XP04115	XP4115	SMini 6P	H19
XN05531	XN5531	Mini 6P	H12	XP04116	XP4116	SMini 6P	H19
XN05553	XN5553	Mini 6P	H12	XP04117	XP4117	SMini 6P	H19
XN05601	XN5601	Mini 6P	H13	XP0411M	XP411M	SMini 6P	H19
XN06113	XN6113	Mini 6P	H19	XP04210	XP4210	SMini 6P	H18
XN06211	XN6211	Mini 6P	H18	XP04211	XP4211	SMini 6P	H18
XN06213	XN6213	Mini 6P	H18	XP04212	XP4212	SMini 6P	H18
XN06214	XN6214	Mini 6P	H18	XP04213	XP4213	SMini 6P	H18
XN06215	XN6215	Mini 6P	H18	XP04214	XP4214	SMini 6P	H18
XN06216	XN6216	Mini 6P	H18	XP04215	XP4215	SMini 6P	H18
XN06401	XN6401	Mini 6P	H13	XP04216	XP4216	SMini 6P	H18
XN06435	XN6435	Mini 6P	H13	XP04217	XP4217	SMini 6P	H18
XN06501	XN6501	Mini 6P	H12	XP0421M		SMini 6P	H18
XN06534	XN6534	Mini 6P	H12	XP04286		SMini 6P	H21
XN06537	XN6537	Mini 6P	H12	XP04311	XP4311	SMini 6P	H20
XN06543	XN6543	Mini 6P	H12	XP04312	XP4312	SMini 6P	H20
XN0A311	XN1A311	Mini 5P	H20	XP04313	XP4313	SMini 6P	H20
XN0A312	XN1A312	Mini 5P	H20	XP04314	XP4314	SMini 6P	H20
XN0A554	XN6A554	Mini 6P	H12	XP04315	XP4315	SMini 6P	H20
XN0B301	XN1B301	Mini 5P	H13	XP04316	XP4316	SMini 6P	H20
XN0C301	XN1C301	Mini 5P	H13	XP0431M		SMini 6P	H20
XP01110	XP1110	SMini 5P	H19	XP0431N		SMini 6P	H20
XP01111	XP1111	SMini 5P	H19	XP04387		SMini 6P	H21
XP01112	XP1112	SMini 5P	H19	XP04401	XP4401	SMini 6P	H13
XP01113	XP1113	SMini 5P	H19	XP04501	XP4501	SMini 6P	H12
XP01114	XP1114	SMini 5P	H19	XP04506	XP4506	SMini 6P	H12
XP01115	XP1115	SMini 5P	H19	XP04601	XP4601	SMini 6P	H13
XP01116	XP1116	SMini 5P	H19	XP04654	XP4654	SMini 6P	H13
XP01117	XP1117	SMini 5P	H19	XP04878		SMini 6P	H5
XP01118	XP1118	SMini 5P	H19	XP0497A		SMini 6P	H5
XP01119	XP1119	SMini 5P	H19	XP05501	XP5501	SMini 6P	H12
XP0111F	XP111F	SMini 5P	H19	XP05531		SMini 6P	H12
XP0111H	XP111H	SMini 5P	H19	XP05534		SMini 6P	H12
XP0111M		SMini 5P	H19	XP05553		SMini 6P	H12
XP01210	XP1210	SMini 5P	H18	XP05554		SMini 6P	H12
XP01211	XP1211	SMini 5P	H18	XP05601	XP5601	SMini 6P	H13
XP01212	XP1212	SMini 5P	H18	XP06111	XP6111	SMini 6P	H19
XP01213	XP1213	SMini 5P	H18	XP06112	XP6112	SMini 6P	H19
XP01214	XP1214	SMini 5P	H18	XP06113	XP6113	SMini 6P	H19
XP01215	XP1215	SMini 5P	H18	XP06114	XP6114	SMini 6P	H19
XP01216	XP1216	SMini 5P	H18	XP06115	XP6115	SMini 6P	H19
XP01217	XP1217	SMini 5P	H18	XP06116	XP6116	SMini 6P	H19
XP0121E		SMini 5P	H18	XP06210	XP6210	SMini 6P	H18
XP0121L		SMini 5P	H18	XP06211	XP6211	SMini 6P	H18
XP0121M		SMini 5P	H18	XP06212	XP6212	SMini 6P	H18
XP0121N		SMini 5P	H18	XP06213	XP6213	SMini 6P	H18
XP01401	XP1401	SMini 5P	H13	XP06214	XP6214	SMini 6P	H18
XP01501	XP1501	SMini 5P	H12	XP06215	XP6215	SMini 6P	H18
XP01531		SMini 5P	H12	XP06216	XP6216	SMini 6P	H18
XP01554	XP1554	SMini 5P	H12	XP06401	XP6401	SMini 6P	H13
XP01601	XP1601	SMini 5P	H13	XP06435	XP6435	SMini 6P	H13
XP01878		SMini 5P	H4	XP06501	XP6501	SMini 6P	H12
XP02210	XP2210	SMini 5P	H18	XP06534	XP6534	SMini 6P	H12
XP02211	XP2211	SMini 5P	H18	XP06543		SMini 6P	H12
XP02215	XP2215	SMini 5P	H18	XP0B301	XP1B301	SMini 5P	H13
XP02401	XP2401	SMini 5P	H13	XP0C301	XP1C301	SMini 5P	H13
XP02501	XP2501	SMini 5P	H12				
XP03311		SMini 5P	H20				

★: Newly listed in this document ▲: Under development △: Tentative

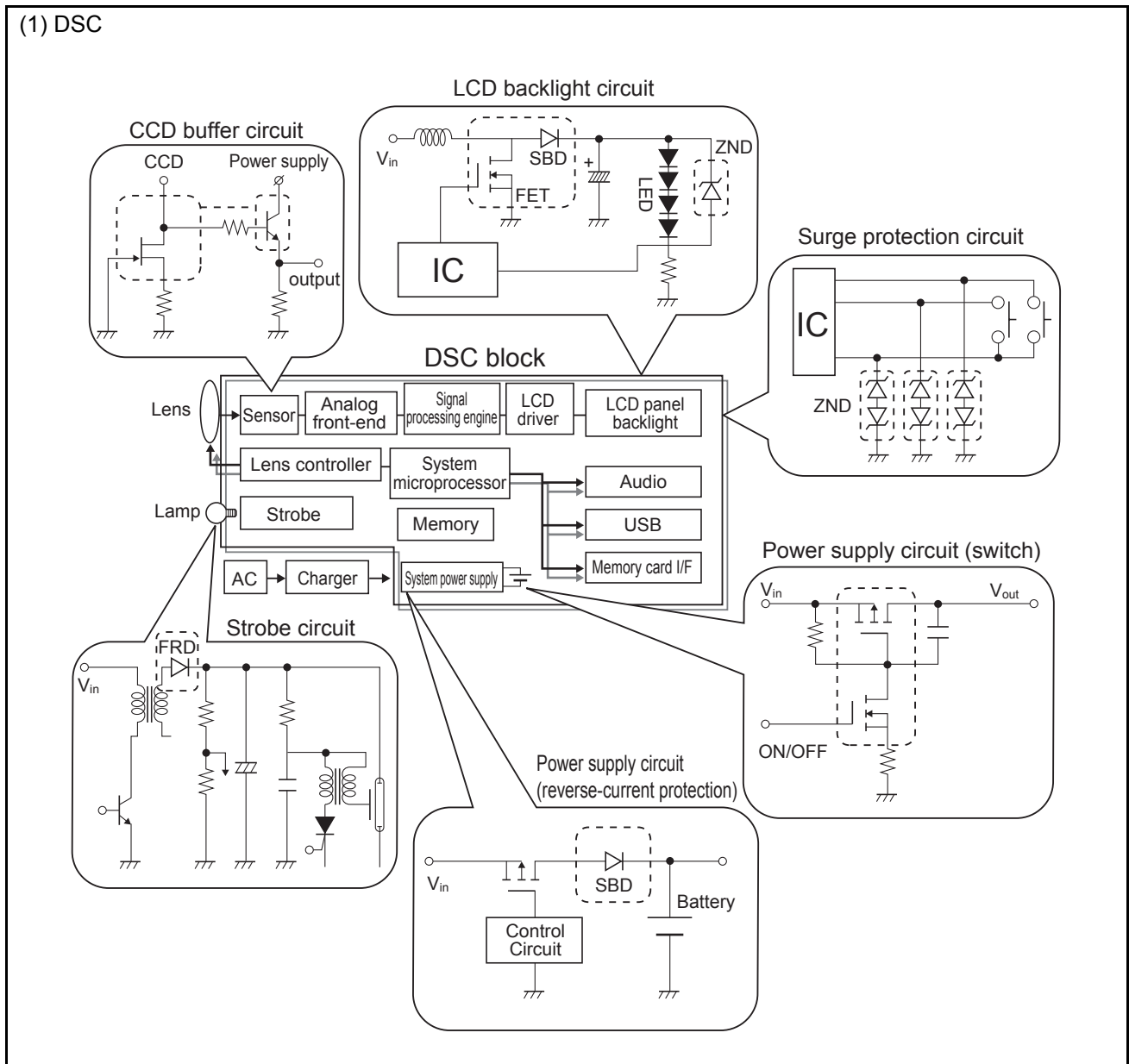
Application Block Diagrams

Application example	B2
(1) DSC	B2
(2) PDP (excluding power supply)	B3
(3) Thin TV power supply	B4
(4) Lithium-ion secondary battery protection circuit	B5
(5) Cellular phone	B6

Application Block Diagrams

Application example

(1) DSC

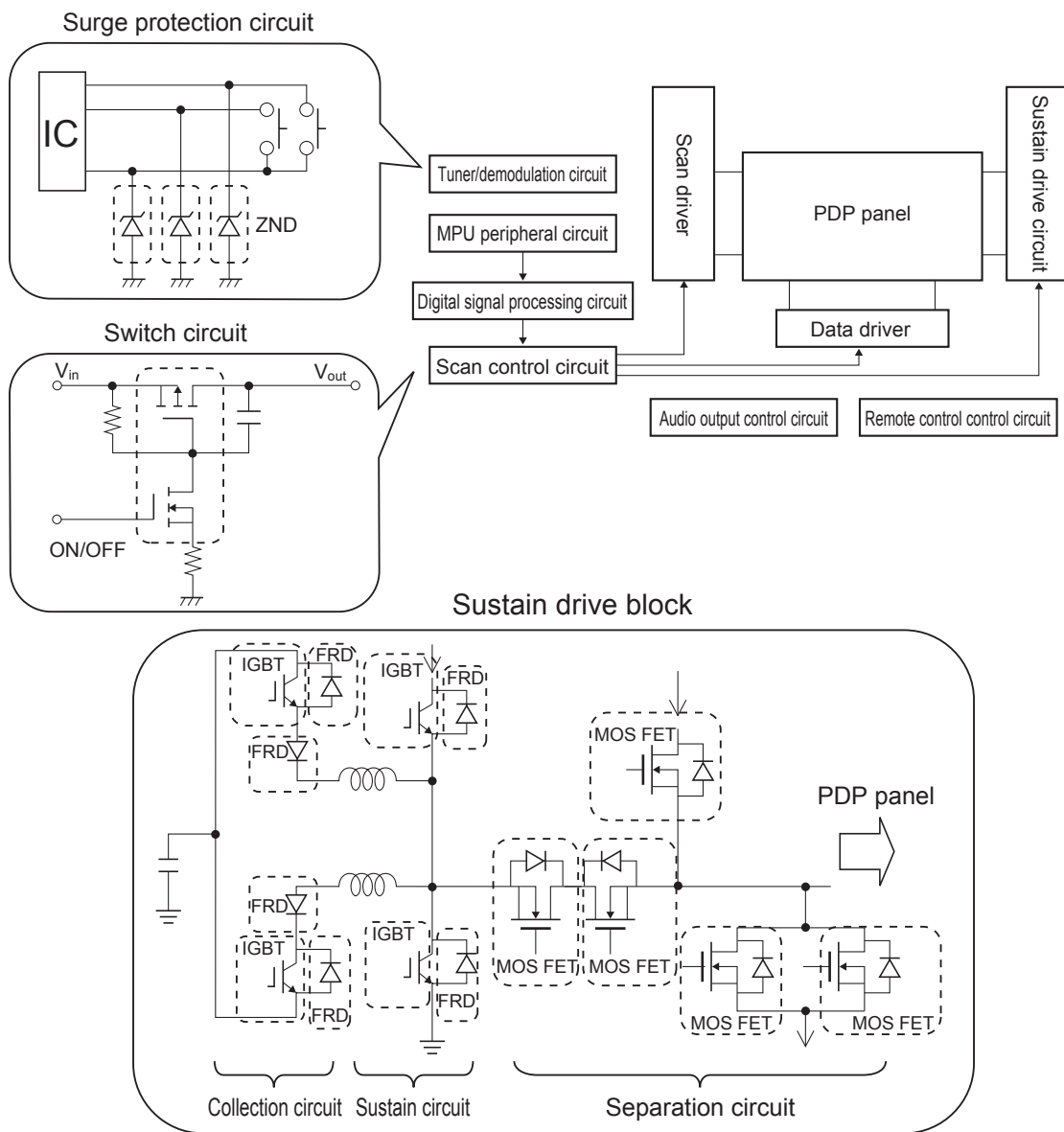


Block	Function; Product classification	Discrete item example
CCD output circuit	Buffer amp/compound discrete device	UP05C8GF, UP05C8PG
LED backlight driver/booster circuit for LCD	High-speed switching MOS FETs	MTM86727
Power supply/switching circuit	Battery reverse-current protection schottky barrier diodes	MA24D50, MA2YJ50
Strobe	Strobe circuit/high-withstand-voltage rectifier fast recovery diodes	MA2YF80
Surge protection	ESD/surge protection diode	MALS068X, MALS180X MAZD068G

Application Block Diagrams

Application example

(2) PDP (excluding power supply)

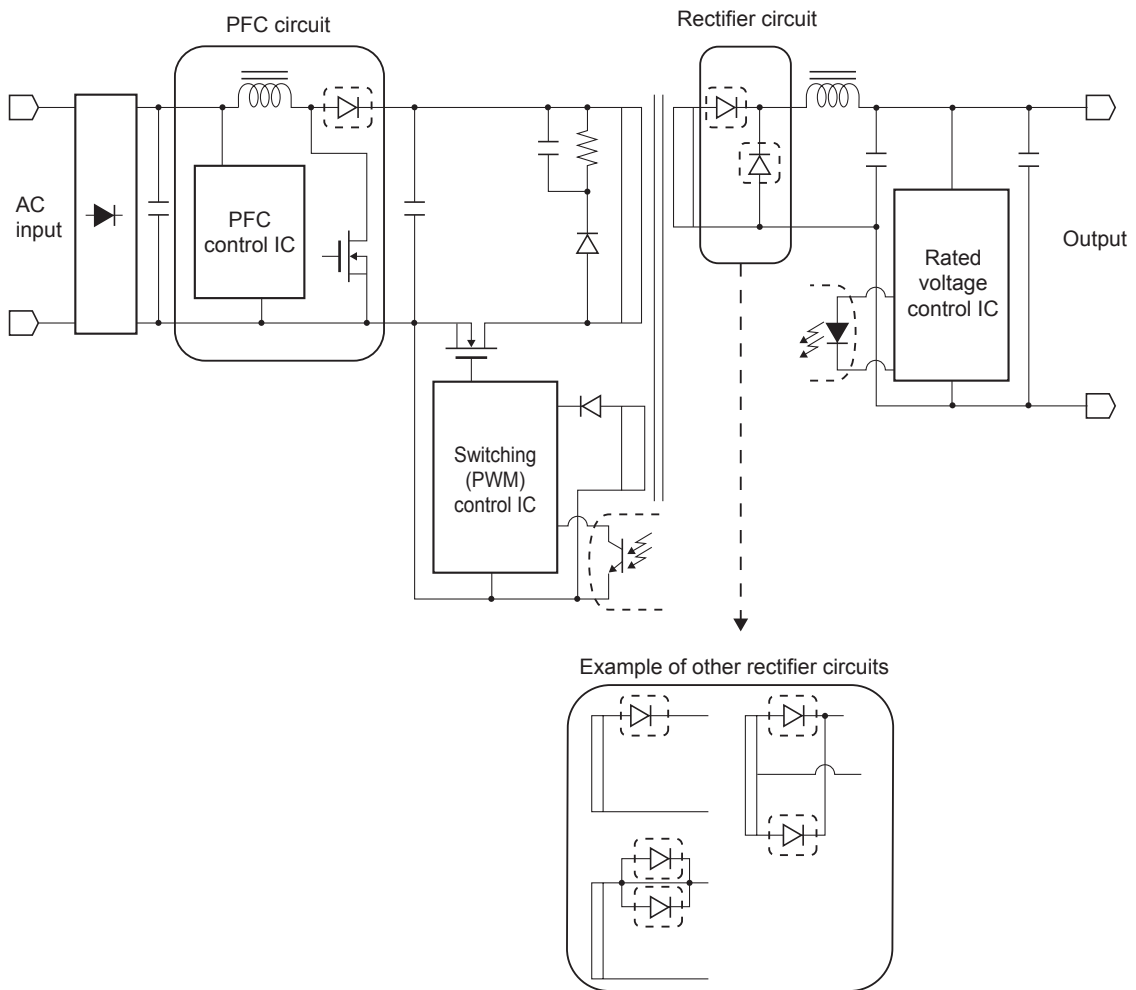


Block	Function; Product classification	Discrete item example
Sustain	Power MOS FETs	2SK3995, 2SK4174, 2SK4208
	IGBT	2PG004, 2PG005, 2PG006, 2PG009
	Fast recovery diodes	MA3DF30, MA3DF40, MA3DF46, MA3DF47
General circuit	Small signal transistors	2SA1309A, 2SC3311A, UNR4000 series, etc.
	Small signal diodes	MA2J111, MA2J1110G, MA2J7**0G, MA3X15* series, etc.
	Surge protection diodes	MAZ3000/MAZ8000 series, MAZ8000G series, MAZYS0750Z, etc.

Application Block Diagrams

Application example

(3) Thin TV power supply



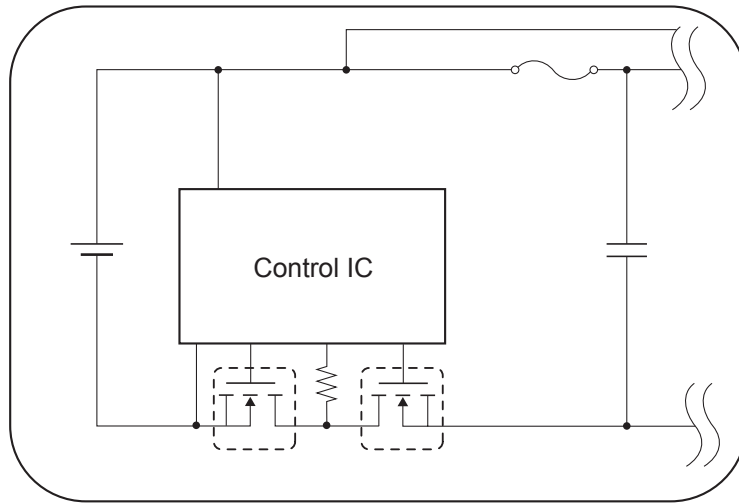
Block	Function; Product classification	Discrete item example
PFC circuit	Fast recovery diodes (600 V)	MA2DF60, MA2DF62
Rectifier circuit	Fast recovery diodes (300 V)	MA2DF31, MA3DF30
	Fast recovery diodes (200 V)	MA22F20
Rectifier circuit	Schottky barrier diodes (60 V)	MA3DD82

Application Block Diagrams

Application example

(4) Lithium-ion secondary battery protection circuit

Lithium-ion secondary battery protection circuit



Set	Function; Product classification	Discrete item example
Battery for portable products (cellular phones, DSC)	Dual N-ch MOS FET (20 V)	MTMC8E2A, MTMC8E28
Battery for laptop PC	Single N-ch MOS FET (30 V)	MTMF8231, ▲ MTMF8233

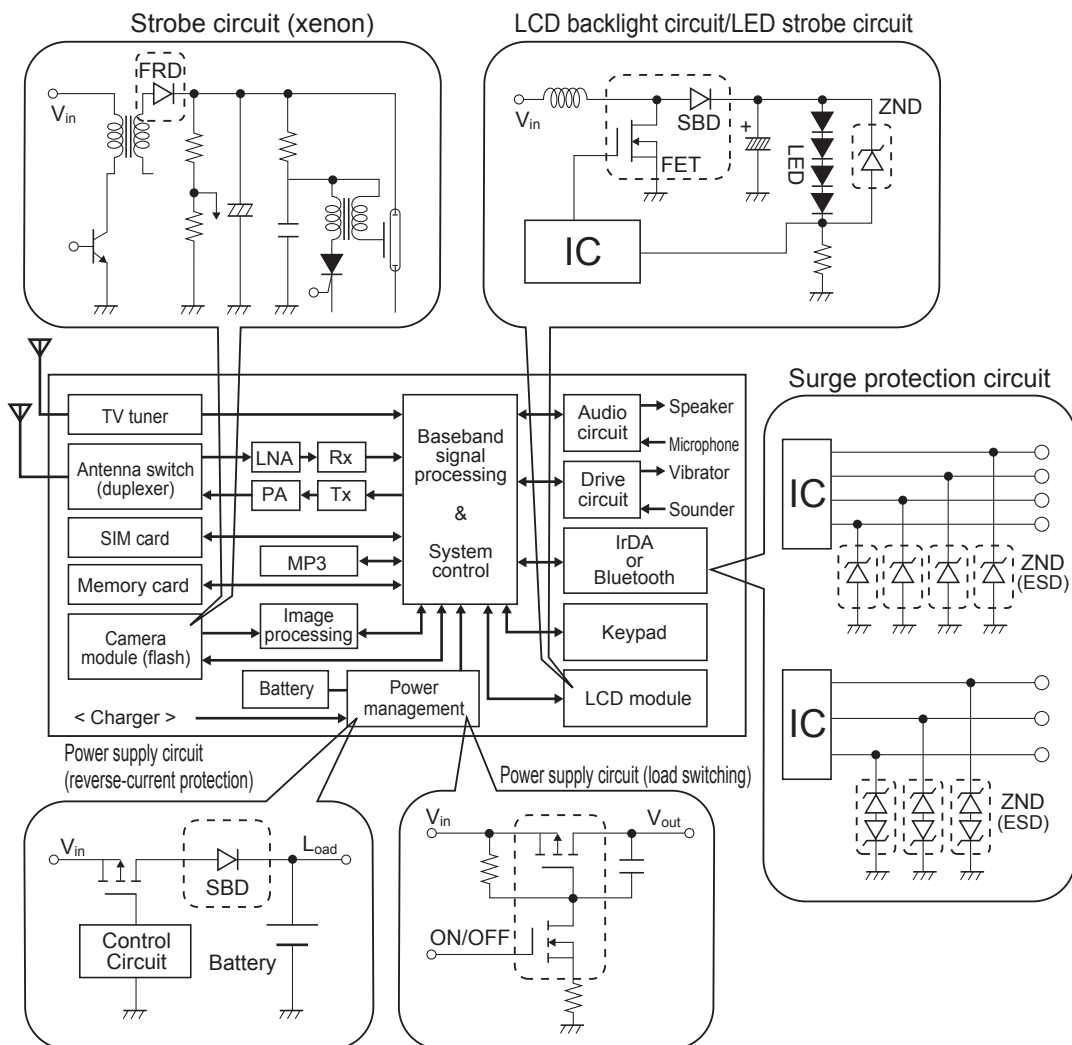
▲: Under development

B

Application Block Diagrams

Application example

(5) Cellular phone



Block	Function; Product classification	Discrete item example
LED backlight driver for LCD (booster circuit) LED strobe circuit	High-speed switching MOS FETs	MTM86727
Power supply circuit	Battery reverse-current protection schottky barrier diodes Load switch	MA24D50, MA2YJ50, MTM76320
Xenon strobe circuit	Strobe circuit/high-withstand-voltage rectifier Fast recovery diodes	MA2YF80
Surge protection circuit	ESD/surge protection diode	MAZQ***, MAZD***, MALS068X, MALS180X, MAZD068G

Transistors

Small Signal FETs.....	H2
MOS FETs (For Small Signa).....	H2
MOS FETs (For Power Management).....	H2
Junction FETs.....	H4
Composite MOS FETs (For Small Signal).....	H4
Composite MOS FETs (For Power Management).....	H6
MOS FET + SBD (For Power Management)	H6
Small Signal Bipolar Transistors	H8
Small Signal Transistors (Low-Frequency Amplifiers).....	H8
Small Signal Transistors (High-frequency Amplifiers)	H10
SiGe HBT	H11
SiGe HBT (Combined Products)	H11
SiGe HBT LNA (with built-in bias circuit)	H11
Composite Transistors (NPN × 2 Series)	H12
Composite Transistors (PNP × 2 Series).....	H13
Composite Transistors (PNP + NPN Series).....	H13
Transistor with Built-in Resistors	H14
Transistor with Built-in Resistors ($I_C = 80$ mA Series)	H14
Transistor with Built-in Resistors ($I_C = 100$ mA Series)	H16
Composite Transistor with Built-in Resistors (NPN × 2 Series).....	H18
Composite Transistor with Built-in Resistors (PNP × 2 Series).....	H19
Composite Transistor with Built-in Resistors (PNP + NPN Series)	H20
Bipolar Power Transistors	H22
Low-Frequency Amplifiers	H22
For Power Amplification.....	H25
For Large-power Amplification.....	H26
For Switching.....	H27
For TV and CRT Monitor	H27
Power MOS FETs	H28
Power MOS FETs.....	H28
IGBT Discrete.....	H28
IGBT	H28



Small Signal FETs

MOS FETs (For Small Signa)

Application	Polarity	Absolute Maximum Ratings		Electrical Characteristics							Package	
		V _{DSS} V _{DS} *1 (V)	I _D (A)	RDS (on) max. (mΩ)					t _{on} typ. (ns)	t _{off} typ. (ns)	ML3-N2	
				V _{GS} = 10V	V _{GS} = 5V	V _{GS} = 4V	V _{GS} = 2.5V	V _{GS} = 1.8V			P _D (mW)	
Digital/ analog switching	Pch	-30	-0.1	—	—	18	30	—	300	400		
				—	75	—	—	—	100 μs	25 μs		
	Nch	20	0.1	—	—	4	6	13	250	480		
				20*1	—	50	—	—	—	max. 1.0 μs	max. 1.0 μs	
		30	0.1	—	50	—	—	—	150	35		
				—	—	8	12	—	350	350	2SK3939	100
		50	0.1	0.60	—	0.75	—	—	12	60		
		50	0.1	—	50	—	—	—	10	20		
		50*1	0.05	—	—	—	50	—	200	200		
			0.1	—	—	12	15	—	200	200		
80	0.5	4	—	—	—	—	15	20				

• : Recommended products (Global package products)

MOS FETs (For Power Management)

Application	Polarity	Absolute Maximum Ratings			Electrical Characteristics								Package		
		V _{DSS} (V)	V _{GSS} (V)	I _D (A)	RDS (on) max. (mΩ)						C _{iss} (pF)	t _{on} typ. (ns)	t _{off} typ. (ns)	WSSMini6-F1	
					V _{GS} = 10V	V _{GS} = 5.0V	V _{GS} = 4.5V	V _{GS} = 4.0V	V _{GS} = 2.5V	V _{GS} = 1.8V				P _D (W)	
Load S/W	Pch	-12	±8	-4.0	—	—	—	42	55	75	1 200	30	300		
					—	—	34	—	41	54	1 400	20	430		
		-20	±10	-3.0	—	—	—	55	70	—	1 000	30	250		
DC-DC Converter	Pch	-20	±10	-2.0	—	—	—	130	200	—	400	15	100	MTM86124	0.54
					—	—	—	120	170	230	300	14	112	MTM86127	0.54
			±12	-1.0	—	—	—	420	560	—	80	18	27	△ MTM86128	0.54
	Nch	20	±10	2.2	—	—	—	105	150	300	280	12	50	MTM86227	0.54
Lithium battery protection circuit	Nch	30	±20	18	4.2	—	9.8	—	—	—	6 000	50	820		
				20	2.8	—	8.0	—	—	—	7 000	70	1 030		
Backlight inverter	Pch	-40	±20	-7.0	25	—	45	—	—	—	2 700	33	300		
	Nch	40		7.0	23	40	—	—	—	—	1 750	26	127		

△: Tentative

Small Signal FETs

Package									
SSSMini3-F1 SSSMini3-F2●		SSMini3-F1 SSMini3-F3●		SMini3-G1 SMini3-F2●		Mini3-G1		MiniP3-F2●	
	P _D (mW)		P _D (mW)		P _D (mW)		P _D (mW)		P _D (mW)
2SJ0674 2SJ0674G●	100 100								
				2SJ0536 2SJ0536G●	150 150				
2SK3973 2SK3973G●	100 100								
				2SK0665 2SK0665G●	150 150				
				2SK3064 2SK3064G●	150 150				
2SK3938 2SK3938G●	100 100								
								2SK2211G●	1 W
				2SK0664 2SK0664G●	150 150				
				2SK1374 2SK1374G●	150 150	2SK1228	150		
2SK3547 2SK3547G●	100 100	2SK3546J 2SK3546G●	125 125	2SK3539 2SK3539G●	150 150				
								2SK0601G●	1 W

Package			
WSMini6-F1		SO8-F1	
	P _D (W)		P _D (W)
MTM76110	0.7		
△ MTM76111	0.7		
MTM76123	0.7		
		MTMF8231	1.0
		△ MTMF8233	1.0
		MTM98140	2.0
		MTM98240	2.0



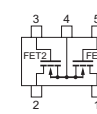
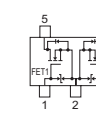
Small Signal FETs

Junction FETs

Application	Polarity	Absolute Maximum Ratings		Electrical Characteristics			Package					
		V_{DSS} * V_{GDS} (V)	I_D * I_{DSS} (mA)	I_{DSS} max. (mA)	GV *NF typ. (dB)	NV max. (μ A)	TSSMini3-F1 TSSMini3-F2●		SSMini3-F1 SSMini3-F2●		SSMini3-F1 SSMini3-F3●	
							P_D (mW)	P_D (mW)	P_D (mW)	P_D (mW)		
Analog switch	Pch	*65	-20	-6	—	—						
Low-frequency, low-noise amplifier	Nch	30	20	12	—	typ. 60 mV						
Low-frequency amplifier	Nch	55	30	12	*2.5	—						
				6.5	*2.5	—				2SK2593J 2SK2593G●	150 150	
Capacitor microphone	Nch	20	*2	0.46	-1.5	4			2SK3372 2SK3372G●	100 100		
				0.47	-1.5	10			2SK3426 2SK3426G● 2SK3585G●	100 100 100		
				0.46	3	4	2SK3862 2SK3862G●	100 100				
				0.31	-3	8	2SK3866 2SK3866G●	100 100				
				0.45	3	10	2SK4206 2SK4206G●	100 100				
				0.45	3	8	2SK3948 2SK3948G●	100 100				
				0.45	3	4	2SK4083 2SK4083G●	100 100				

● : Recommended products (Global package products)

Composite MOS FETs (For Small Signal)

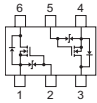
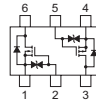
Application	Absolute Maximum Rating		Electrical Characteristics					Package					
								XN		XP•UP			
	V_{DSS} (V)	I_D (mA)	$V_{GS} = 4.0$ V	$V_{GS} = 2.5$ V	$V_{GS} = 1.8$ V	t_{on} (ns)	t_{off} (ns)	XN		XP•UP			
Switching circuit	20	100	3.0	4.0	6.0	250	480						
								Nch × 2	P_T (mW)	Nch × 2	P_T (mW)		
	30	100	8	12	—	350	350			UP0187B UP0187BG●	125 125		
	-30/30	-100/ 100	18/8	30/12	—	300/350	400/350						
	50	100	12	15	—	200	200			XP01878 UP01878 UP01878G●	150 125 125		
	-30/50	-100/ 100	15/12	25/15	—	850/200	850/200						
	50	100	50	—	—	max. 1.0 μ s	max. 1.0 μ s	XN01872		300			

● : Recommended products (Global package products)

Small Signal FETs

Package					
SMini3-G1 SMini3-F2●		Mini3-G1		NS-A1 NS-B1	
P_D (mW)		P_D (mW)		P_D (mW)	
2SJ0364	150	2SJ0163	150	2SJ0164	300
2SJ0364G●	150				
2SK0662	150	2SK0198	150		
2SK0662G●	150				
2SK0663	150				
2SK0663G●	150				
		2SK2751	200		



Package					
XP: SMini6-G1 UP: SSMini6-F1 UP: SSMini6-F2●					
XP•UP		XP•UP		Basic Type	
					
Nch × 2	P_T (mW)	Pch + Nch	P_T (mW)	Pch	Nch
UP0487C UP0487CG●	125 125			—	2SK3973
UP0487B UP0487BG●	125 125			—	2SK3938
		XP0497A UP0497A UP0497AG●	150 125 125	2SJ0674	2SK3938
XP04878 UP04878 UP04878G●	150 125 125			—	2SK3539
		UP04979 UP04979G●	125 125	2SJ0672	2SK3539
					2SK0665

Small Signal FETs

Composite MOS FETs (For Power Management)

Application	Absolute Maximum Rating			Electrical Characteristics								Package	
	V _{DSS} (V)	V _{GSS} (V)	I _D (A)	R _{DS(on)} max. (Ω)					C _{iss} (pF)	t _{on} typ. (ns)	t _{off} typ. (ns)	WSMini6-F1	
				V _{GS} = 5.0V	V _{GS} = 4.5V	V _{GS} = 4.0V	V _{GS} = 2.5V	V _{GS} = 1.8V				Pch × 2	P _D (W)
				—	—	42	55	75					
Load S/W	-12	±8	-4.8	—	—	42	55	75	1 200	19	320		
				32	—	—	40	60	1 400	20	430		
	-20	±10	-4.2	—	—	55	70	—	1 000	50	190		
DC-DC Converter	-20/30	±10/±12	-2.0/0.1	—	—	120/12 000	170/8 000	230	300/12	14/350	112/350		
	-20	±10	-1.2	—	—	130	200	280	440	35	100	MTM76420	0.7
				-20/20	±10/±10	-1.2/1.9	—	—	130/105	200/150	—	440/280	35/12
20	±10	2.0	—	—	105	150	300	280	13	38			
Lithium battery protection circuit	20	±10	7.0	—	21	—	33	—	1 500	32	210		
		±12		—	21	—	33	—	1 450	1 030	6 000		

△: Tentative

MOS FET + SBD (For Power Management)

Application	FET Polarity	MOS FET								SBD				Package					
		Absolute Maximum Rating			Electrical Characteristics					Absolute Maximum Rating		Electrical Characteristics		WSMini6-F1					
		V _{DSS} (V)	V _{GSS} (V)	I _D (A)	R _{DS(on)} typ.		C _{iss} (pF)	t _{on} typ. (ns)	t _{off} typ. (ns)	V _R (V)	I _F (A)	V _F max. (V)	I _R max. (μA)	WSMini6-F1		WSMini6-F1		WSMini6-F1	
					(mΩ)	V _{GS} (V)								(W)	(W)	(W)	(W)		
DC-DC Converter	Pch	-20	±10	-2.0	80	-4.0	300	14	112	15	0.7	0.45	250	MTM86627	0.54				
				-2.5	100	-1.8								△ MTM86627A	0.54				
	Nch	20	2.2	80	4.0	280	13	38	20	0.8	0.47	80			MTM86727	0.54			
			2.0	100	2.5												MTM76720	0.7	

△: Tentative

Small Signal FETs

Package									
WSMini6-F1				WMini8-F1					
Pch + Nch	P _D (W)	Nch × 2	P _D (W)	Pch × 2	P _D (W)	Nch × 2	P _D (W)	Nch × 2	P _D (W)
				MTM68410	1.0				
				MTM68411	1.0				
				△ MTM68423	1.0				
MTM76321	0.7								
MTM76320	0.7								
		MTM76520	0.7						
						MTMC8E28	1.0		
								MTMC8E2A	1.0



Small Signal Bipolar Transistors

Small Signal Transistors (Low-Frequency Amplifiers)

Application	Absolute Maximum Ratings		Electrical Characteristics				Package							
	V _{CEO} (V)	I _C (mA)	V _{CE(sat)} max. (V) ⊗NV (mV)	I _C (mA)	h _{FE}	I _C (mA)	ML3-N2	P _C (mW)	SSSMini3-F1 SSSMini3-F2●	P _C (mW)	SSMini3-F1 SSMini3-F3●	P _C (mW)	SMini3-G1 SMini3-F2●	P _C (mW)
General-purpose	50	100	0.5 0.3	100	160 to 460	2	(2SA2079 2SC5848	100 100	(2SA2021G● 2SC5609G● (h _{FE} : 180 to 390)	100 100	(2SB1462J 2SD2216J (2SB1462G● 2SD2216G●	125 125 125 125	(2SB1218A 2SD1819A (2SB1218G● 2SD1819G●	150 150 150 150
					180 to 390				(2SA2078 2SC5846 (2SA2078G● 2SC5846G●		(2SA2174J 2SC6054J (2SA2174G● 2SC6054G●		(2SA2122 2SC5950 (2SA2122G● 2SC5950G●	
	500	0.6	300	85 to 340	150						(2SB1219A 2SD1820A (2SB1219G● 2SD1820G●	150 150 150 150		
High-h _{FE} (High V _{EB0})	40	50	0.2	10	600 to 2 000	2					2SD2345J 2SD2345G●	125 125	2SD1823 2SD1823G●	150 150
	100	20			400 to 1 200				2SD2621 2SD2621G●	100 100	2SD2620J 2SD2620G●	125 125	2SD1824 2SD1824G●	150 150
Low freq. low noise amplifier	120	20	⊗130	1	180 to 700	2					2SB1722J 2SB1722G (V _{CEO} 100 V)	125 125	2SA2009G●	150
	150	50	⊗150		130 to 330	10					(2SB1463J 2SD2240J (2SB1463G● 2SD2240G●	125 125	2SB1220 2SB1220G●	150 150
	185												2SD1821A 2SD1821G●	150 150
	55				180 to 700	2							2SC3929A	150
Low V _{CE(sat)}	10	500	0.3	400	130 to 350	500							2SB1679 2SB1679G●	150 150
	12		(2SA2162 2SC6036 (2SA2162G● 2SC6036G●	(2SA2161J 2SC6037J (2SA2161G● 2SC6037G●	100 100 100 100	125 125 125 125								
			0.4	500	200 to 800	500						2SD2623 2SD2623G●	150 150	
	20	300		30	550 to 2 500	4							2SD1979 2SD1979G●	150 150
		1 A	0.1	200	160 to 560	100							(2SA2028 2SC5654 (2SA2028G● 2SC5654G●	150 150 150 150

(: Complementary pair ● : Recommended products (Global package products)

Small Signal Bipolar Transistors

Small Signal Transistors (Low-Frequency Amplifiers) (continued)

Application	Absolute Maximum Ratings		Electrical Characteristics				Package							
	V _{CEO} (V)	I _C (mA)	V _{CE(sat)} max. (V) ⊗NV (mV) ▲f _T (MHz)	I _C * I _E (mA)	h _{FE}	I _C (mA)	Mini3-G1	P _C (mW)	NS-A1 NS-B1	P _C (mW)	TO-92-A1 TO-92-B1	P _C (mW)	MT-1-A1	P _C (mW)
General-purpose	50	100	0.3	100	160 to 460	2	(2SB0709A 2SD0601A	200 200	(2SA1309A 2SC3311A	300 300			(2SB1320A 2SD1991A	400 400
					180 to 390		(2SA2077 2SC5845	200 200						
	50	500	0.6	300	160 to 460	150	(2SB0710A 2SD0602A	200 200	(2SB1030A 2SD1423A	300 300	(2SA0720 2SC1318	625 625	(2SB1321A 2SD1992A	600 600
					85 to 500		2	△2SB1734	200					
	70	500	0.6	300		150					(2SA0720A 2SC1318A	625 625		
	25	1 A	0.4	500	85 to 340	500					2SD0592	750		
50									(2SB0621A 2SD0592A	750 750				
High-h _{FE}	40	50	0.2	10	400 to 2 000	2	2SD1030	200					2SD1995	400
	100	20			400 to 1 200	2	2SD1149	200						
Darlington	50	500	2.5	500	4000 to 20 000	500	2SD1478A	200						
Low freq. low noise amplifier	150	50	⊗150	1	130 to 450	10					(2SA1123 2SC2631	750 750		
	185				130 to 330		(2SB0792A 2SD0814A	200 200						
	55				180 to 700		2SC2406	200						
		100						2SC3312	300	2SC2634	400	2SD1993	400	
Low V _{CE(sat)}	10	500	0.3	400	130 to 350	500	2SB0970	200						
	20		0.4	500	200 to 800		2SD1328	200	2SD1450	300	2SD1302	600	2SD1996	600
		300	0.1	30	500 to 2 500	4	2SD1938F	600 ¹⁾						
	80	2 A	0.5	2 A	80 to 250	1 A	2SD2714	200 ¹⁾						
	20	5 A	1.0	3 A	230 to 600	500					2SD0965	750		
TV Chroma output	200	70	▲80	*10	60 to 220	5					(2SA1018 2SC1473	750 750		
	300		▲50		30 to 150		2SA2084	200		2SA1767	750			
			▲30		60 to 220		2SC5863	200		2SC1473A	750			

(: Complementary pair

Mini3-G1 1): Measured on a ceramic substrate (15 × 15 × 0.6 mm)

△: Tentative

Small Signal Bipolar Transistors

Small Signal Transistors (High-frequency Amplifiers)

Application	Absolute Maximum Ratings		Electrical Characteristics		Package									
	V_{CE0} V_{CES}^{*1} (V)	I_C (mA)	f_T (Hz)	t_s (ns)*2 I_E, I_C^{*3} (mA)	ML3-N2		SSSMini3-F1 SSSMini3-F2*		SSMini3-F1 SSMini3-F3*		SMini3-G1 SMini3-F2*		Mini3-G1	
						P_C (mW)		P_C (mW)		P_C (mW)		P_C (mW)		P_C (mW)
AM•FM Amp.	20	30	230 M	1	2SA2163	100	2SA2164 2SA2164G*	100 100	(2SA1790J 2SC4626J 2SA1790G* 2SC4626G*)	125 125 125 125	(2SA1532 2SC3930 2SA1532G* 2SC3930G*)	150 150 150 150	(2SA1022 2SC2295)	200 200
			300 M											
RF Amp.	50	50	250 M	2					(2SA1791J 2SA1791G* 2SC4656G*)	125 125 125	(2SA1748 2SA1748G* 2SC4562G*)	150 150 150		
Video IF FM RF Amp.	20	15	650 M	1					(2SC4627J 2SC4627G*)	125 125	(2SC3931 2SC3931G*)	150 150	2SC2404	150
	8	50	1.1 G	15							2SC5632G*	150		
VHF OSC. Amp.	20	50	1.3 G	15			2SC5946 2SC5946G*	100 100			(2SC3932 2SC3932G*)	150 150	2SC2480	150
UHF OSC.	10	50	1.9 G	5	2SC6050	100	2SC5939 2SC5939G*	100 100	(2SC4809J 2SC4809G*)	125 125	(2SC3935 2SC3935G*)	150 150	2SC3130	150
1V RF Amp.	7	10	4.0 G	1*3	2SC5829	50					2SC4410G*	50		
Wide Band Amp. SHF IF Amp.	12	30	4.5 G	10*3							(2SC3934 2SC3934G*)	150 150		
	10	80	6.0 G	20*3							2SC3937G*	150		
		65	8.5 G	15*3			2SC6045G*	100	2SC4808G*	125	(2SC4835 2SC4835G*)	150 150		
High speed switch	15	50	19*2	—	2SA2082	100			(2SA1806J 2SA1806G*)	125 125	(2SA1739 2SA1739G*)	150 150	2SA1738	200
	40*1	100	10*2	—					(2SC4691J 2SC4691G*)	125 125	(2SC3938 2SC3938G*)	150 150	2SC3757	200

(: Complementary pair

• : Recommended products (Global package products)

Small Signal Bipolar Transistors

SiGe HBT

Application	Absolute Maximum Ratings		Electrical Characteristics					Package	
	V _{CEO} (V)	I _C (mA)	h _{FE}	f _T (GHz)	Cob (pF)	S _{21e} ² (dB)	NF (dB)	ML3-N2 P _C = 100 mW	SSSMini3-F1 P _C = 100 mW
High-frequency Amplifiers	6	30	100 to 220	19	0.3	11.0	1.4	MSG43001	MSG33001
		60			0.4	10.5		MSG43002	MSG33002
		100			0.5	10.0		MSG43003	MSG33003
				17	0.6	9.0	MSG43004	MSG33004	
				16	0.8	8.0	MSG430C4	MSG330C4	
				14	1.0	6.0	MSG430D4	MSG330D4	

SiGe HBT (Combined Products)

Application	Absolute Maximum Ratings		Electrical Characteristics					Package	Basic Type		Equivalent Circuit
	V _{CEO} (V)	I _C (mA)	h _{FE}	f _T (GHz)	Cob (pF)	S _{21e} ² (dB)	NF (dB)	SSSMini6-F1 P _T = 125 mW	Tr1 (OSC)	Tr2 (Buffer)	
High-frequency Amplifiers	6	30	100 to 220	19	0.3	11.0	1.4	MSG36E11	MSG33001		
		100			0.5	10.0		MSG36E33	MSG33003		
		100/30			0.5/0.3			10.0/11.0		MSG36E31	
				17/19	0.6/0.3	9.0/11.0	MSG36E41	MSG33004	MSG33001		
		100/60		16/19	0.8/0.4	8.0/10.5	1.6/1.4	MSG36C42	MSG330C4	MSG33002	
				14/19	1.0/0.4	6.0/10.5		MSG36D42	MSG330D4	MSG33002	

SiGe HBT LNA (with built-in bias circuit)

Application	Absolute Maximum Ratings		Electrical Characteristics					Package	Equivalent Circuit
	V _{CC} (V)	I _{CC} (mA)	V _{CC} (V)	I _{CC} (mA)	f (opr) (GHz)	G _p (dB)	NF (dB)	ML6-N6 P _T = 60 mW	
Low-noise high-frequency amplifier (LNA)	3.8	18	2.2 to 3.6*1	< 18*2	0.1 to 6*3	10.5 (f = 5.2 GHz)	1.5 (f = 5.2 GHz)	MSG56BBA	
		9		< 9*2		11.5 (f = 5.2 GHz)	1.6 (f = 5.2 GHz)	MSG56BBB	

*1: Recommended voltage range

*2: Maximum value (adjustable using external resistance)

*3: Adjustable using input/output adjustment circuit

Small Signal Bipolar Transistors

Composite Transistors (NPN × 2 Series)

Application	Absolute Maximum Ratings		Electrical Characteristics	XN: Mini5-G1 XP: SMini5-G1		XN: Mini6-G1 XP: SMini6-G1 UP: SSMini6-F1 UP: SSMini6-F2● NP: SSSMini6-F1				Basic Type	Remarks		
	V _{CE0} (V)	I _C (mA)		h _{FE}	XN	XN	XN	XN		XN		XN	NPN
General-use	50	100	160 to 460	XN01501 XP01501	XN02501 XP02501	XN04501 XP04501 UP04501 UP04501G● NP04501	XN05501 XP05501		XN06501 XP06501 △UP06501G●		2SD0601A		
		500	85 to 340			XN04502						2SD0602A	
Low V _{CE(sat)}	12	500	270 to 880			UP04532G●					2SC6037J	V _{CE(sat)} = 0.25 V max.	
		20	300	500 to 2 500			XN04506 XP04506					2SD1938(F)	V _{CE(sat)} = 0.1 V max.
			500	200 to 800			XN04504						2SD1328
				XN01558							2SD2623		
Low V _{CE(sat)} + General-use	50/20	100/500	160 to 460/ 200 to 800			XN04505					2SD2216J 2SD1328	V _{CE(sat)} = 0.5/ 0.4 V max.	
High frequency	10	50	75 to 400	XN01531 XP01531			XN05531 XP05531				2SC3130	f _T = 1.9 GHz	
		65	50 to 300						XN06543 XP06543		2SC3904	f _T = 8.5 GHz	
	12	30	40 ≤						XN06537		2SC3934	f _T = 4.5 GHz	
	20	15	40 to 260			UP04534 UP04534G●	XP05534		XN06534 XP06534		2SC2404	f _T = 650 MHz	
High frequency + General-use	20/50	15/ 100	65 to 260/ 160 to 460			UP04598 UP04598G●					2SC2404 2SD2216J	f _T = 650/ 150 MHz	
		50/ 100	25 to 250/ 160 to 460			UP04599 UP04599G●					2SC3932 2SD2216J	f _T = 1 300/ 150 MHz	
High-h _{FE}	100	20	400 to 2 000			XN04556	XN05553 XP05553				2SD1149	h _{FE} = 400 to 2 000	
High-speed switching	40	100	60 to 320	XP01554			XP05554			XN0A554	2SC3757	t _{on} = 17 ns, t _{off} = 17 ns	

● : Recommended products (Global package products)

Mini5/6-G1: P_T = 300 mW, SMini 5/6-G1: P_T = 150 mW, SSMini6-F1: P_T = 125 mW, SSSMini6-F1: P_T = 125 mW

Small Signal Bipolar Transistors

Composite Transistors (PNP × 2 Series)

Function	Absolute Maximum Ratings		Electrical Characteristics	XN: Mini5-G1 XP: SMini5-G1		XN: Mini6-G1 XP: SMini6-G1 UP: SSMini6-F1 UP: SSMini6-F2● NP: SSSMini6-F1			Basic Type		Remarks	
	V _{CEO} (V)	I _C (mA)		h _{FE}	XN	XN	XN		XN	PNP		
					XP	XP	XP•UP•NP	NP	XP			
General-use	-50	-100	160 to 460	XN01401 XP01401	XN02401 XP02401	XN04401 XP04401 UP04401 UP04401G● NP04401		XN06401 XP06401	2SB0709A			
		-500	85 to 340			XN04402			2SB0710A			
	-50/-50	-100/-500	160 to 460/ 85 to 340			XN04482			2SB0709A 2SB0710A			
Low V _{CE(sat)}	-10	-500	100 to 350			XN04404			2SB0970		V _{CE(sat)} = -0.3 V max.	
High frequency	-20	-30	50 to 220					XN06435 XP06435	2SA1022		f _T = 150 MHz (Min.)	
	-15	-50	50 to 150				NP0A456		2SA2082		f _T = 1.5 GHz	

● : Recommended products (Global package products)

Mini5/6-G1: P_T = 300 mW, SMini 5/6-G1: P_T = 150 mW, SSMini6-F1: P_T = 125 mW, SSSMini6-F1: P_T = 125 mW

Composite Transistors (PNP + NPN Series)

Function	Absolute Maximum Ratings		Electrical Characteristics	XN: Mini5-G1 XP: SMini5-G1		XN: Mini6-G1 XP: SMini6-G1 UP: SSMini6-F1 UP: SSMini6-F2● NP: SSSMini6-F1			Basic Type		Remarks	
	V _{CEO} (V)	I _C (mA)		h _{FE}	XN	XN	XN	XN	XN	PNP		NPN
					XP	XP	XP	XP•UP•NP	XP			
General-use	-50/ 50	-100/ 100	160 to 460	XN01601 XP01601	XN0B301 XP0B301	XN0C301 XP0C301	XN04601 XP04601 UP04601 UP04601G● NP04601	XN05601 XP05601	2SB0709A	2SD0601A		
		-500/ 500	85 to 340	XN01602			XN04602		2SB0710A	2SD0602A		
Low V _{CE(sat)}	-10/20	-500/ 500	100 to 350/ 200 to 800				XN04604		2SB0970	2SD1328	V _{CE(sat)} = -0.3/0.4 V max.	
Low V _{CE(sat)} +General-use	-10/50	-500/ 100	100 to 350/ 160 to 400				XN04608		2SB0970	2SD0601A	V _{CE(sat)} = -0.3/0.4 V max.	
	-50/20	-100/ 500	160 to 460/ 200 to 800				XN04609		2SB0709A	2SD1328		
High-speed switching	-15/ 40	-50/100	50 to 150/ 60 to 320				XP04654		2SA1738	2SC3757	t _{on} = 12/17 ns, t _{off} = 20/17 ns	

● : Recommended products (Global package products)

Mini5/6-G1: P_T = 300 mW, SMini 5/6-G1: P_T = 150 mW, SSMini6-F1: P_T = 125 mW, SSSMini6-F1: P_T = 125 mW



Transistor with Built-in Resistors

Transistor with Built-in Resistors ($I_C = 80$ mA Series)

Resistor value (k Ω)		Absolute Maximum Ratings		Electrical Characteristics	Package				
					ML3-N2		SSSMini3-F1 SSSMini3-F2 [•]		
R ₁	R ₂	V _{CE0} (V)	I _C (mA)	h _{FE}	PNP	NPN	PNP	NPN	
0.51	5.1	-50 50	-80 80	20 ≤	—	UNRF2A8	UNR31A8 UNR31A8G [•]	UNR32A8 UNR32A8G [•]	
1	10			30 ≤	UNRF1A9	UNRF2A9	UNR31A9 UNR31A9G [•]	UNR32A9 UNR32A9G [•]	
2.2	2.2			6 to 20	—	UNRF2AV	UNR31AV UNR31AVG [•]	UNR32AV UNR32AVG [•]	
	10			30 ≤	UNRF1AH	—	UNR31AH UNR31AHG [•]	—	
4.7	4.7			80 ≤	UNRF1AM	UNRF2AM	UNR31AM UNR31AMG [•]	UNR32AM UNR32AMG [•]	
	10			20 ≤	UNRF1AL	UNRF2AL	UNR31AL UNR31ALG [•]	UNR32AL UNR32ALG [•]	
4.7	10			30 ≤	UNRF1AF	UNRF2AF	UNR31AF UNR31AFG [•]	UNR32AF UNR32AFG [•]	
	47			80 to 400	UNRF1AN	UNRF2AN	UNR31AN UNR31ANG [•]	UNR32AN UNR32ANG [•]	
10	—			160 to 460	UNRF1A6	UNRF2A6	UNR31A6 UNR31A6G [•]	UNR32A6 UNR32A6G [•]	
	4.7			20 ≤	—	UNRF2AK	—	—	
10	10			35 ≤	UNRF1A1	UNRF2A1	UNR31A1 UNR31A1G [•]	UNR32A1 UNR32A1G [•]	
	47			80 ≤	UNRF1A4	UNRF2A4	UNR31A4 UNR31A4G [•]	UNR32A4 UNR32A4G [•]	
22	—			160 to 460	UNRF1A5	UNRF2A5	UNR31A5 UNR31A5G [•]	UNR32A5 UNR32A5G [•]	
	22			60 ≤	UNRF1A2	UNRF2A2	UNR31A2 UNR31A2G [•]	UNR32A2 UNR32A2G [•]	
47	47			80 to 400	UNRF1AT	UNRF2AT	UNR31AT UNR31ATG [•]	UNR32AT UNR32ATG [•]	
	—			160 to 460	UNRF1A7	UNRF2A7	UNR31A7 UNR31A7G [•]	UNR32A7 UNR32A7G [•]	
100	22			60 ≤	—	—	UNR31AE UNR31AEG [•]	UNR32AE UNR32AEG [•]	
	47			80 ≤	UNRF1A3	UNRF2A3	UNR31A3 UNR31A3G [•]	UNR32A3 UNR32A3G [•]	
100	—			160 to 460	UNRF1A0	UNRF2A0	UNR31A0 UNR31A0G [•]	UNR32A0 UNR32A0G [•]	
	100			80 ≤	UNRF1AA	—	UNR31AA UNR31AAG [•]	UNR32AA UNR32AAG [•]	
Equivalent circuit		(PNP Type)				(NPN Type)			

• : Recommended products (Global package products)

Transistor with Built-in Resistors

Transistor with Built-in Resistors ($I_C = 80$ mA Series) (continued)

Resistor value (k Ω)		Absolute Maximum Ratings		Electrical Characteristics	Package				
					SSMini3-F1 SSMini3-F3 [•]		SMini3-F2 [•]		
R ₁	R ₂	V _{CEO} (V)	I _C (mA)	h _{FE}	PNP	NPN	PNP	NPN	
0.51	5.1	-50 50	-80 80	20 ≤	—	UNR92A8J UNR92A8G [•]	UNR51A8G [•]	UNR52A8G [•]	
1	10			30 ≤	UNR91A9J UNR91A9G [•]	UNR92A9J UNR92A9G [•]	UNR51A9G [•]	UNR52A9G [•]	
2.2	2.2			6 to 20	UNR91AVJ UNR91AVG [•]	UNR92AVJ UNR92AVG [•]	UNR51AVG [•]	UNR52AVG [•]	
	10			30 ≤	UNR91AHJ UNR91AHG [•]	—	UNR51AHG [•]	—	
4.7	4.7			80 ≤	UNR91AMJ UNR91AMG [•]	UNR92AMJ UNR92AMG [•]	UNR51AMG [•]	UNR52AMG [•]	
	10			20 ≤	UNR91ALJ UNR91ALG [•]	UNR92ALJ UNR92ALG [•]	UNR51ALG [•]	UNR52ALG [•]	
10	10			30 ≤	UNR91AFJ UNR91AFG [•]	UNR92AFJ UNR92AFG [•]	UNR51AFG [•]	UNR52AFG [•]	
	47			80 to 400	UNR91ANJ UNR91ANG [•]	UNR92ANJ UNR92ANG [•]	UNR51ANG [•]	UNR52ANG [•]	
22	22			160 to 460	UNR91A6J UNR91A6G [•]	UNR92A6J UNR92A6G [•]	UNR51A6G [•]	UNR52A6G [•]	
	47			20 ≤	—	—	—	—	
47	47			35 ≤	UNR91A1J UNR91A1G [•]	UNR92A1J UNR92A1G [•]	UNR51A1G [•]	UNR52A1G [•]	
	—			80 ≤	UNR91A4J UNR91A4G [•]	UNR92A4J UNR92A4G [•]	UNR51A4G [•]	UNR52A4G [•]	
100	100			160 to 460	UNR91A5J UNR91A5G [•]	UNR92A5J UNR92A5G [•]	UNR51A5G [•]	UNR52A5G [•]	
	—			60 ≤	UNR91A2J UNR91A2G [•]	UNR92A2J UNR92A2G [•]	UNR51A2G [•]	UNR52A2G [•]	
—	—			80 to 400	UNR91ATJ UNR91ATG [•]	UNR92ATJ UNR92ATG [•]	UNR51ATG [•]	UNR52ATG [•]	
	—			160 to 460	UNR91A7J UNR91A7G [•]	UNR92A7J UNR92A7G [•]	UNR51A7G [•]	UNR52A7G [•]	
—	—			60 ≤	UNR91AEJ UNR91AEG [•]	UNR92AEJ UNR92AEG [•]	UNR51AEG [•]	UNR52AEG [•]	
	—			80 ≤	UNR91A3J UNR91A3G [•]	UNR92A3J UNR92A3G [•]	UNR51A3G [•]	UNR52A3G [•]	
—	—			160 to 460	UNR91A0J UNR91A0G [•]	UNR92A0J UNR92A0G [•]	UNR51A0G [•]	UNR52A0G [•]	
—	—			80 ≤	UNR91AAJ UNR91AAG [•]	UNR92AAJ UNR92AAG [•]	UNR51AAG [•]	UNR52AAG [•]	
Equivalent circuit		(PNP Type)				(NPN Type)			

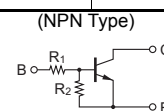
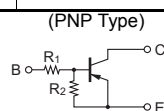
• : Recommended products (Global package products)

Transistor with Built-in Resistors

Transistor with Built-in Resistors ($I_C = 100$ mA Series)

Resistor value (k Ω)		Absolute Maximum Ratings		Electrical Characteristics	Package			
					SSMini3-F1 SSMini3-F3 [•]		SMini3-G1 SMini3-F2 [•]	
R ₁	R ₂	V _{CEO} (V)	I _C (mA)	h _{FE}	PNP	NPN	PNP	NPN
0.51	5.1	-50 50	-100 100	20 ≤	UNR9118J UNR9118G [•]	UNR9218J UNR9218G [•]	UNR5118 UNR5118G [•]	UNR5218 UNR5218G [•]
1	10			30 ≤	UNR9119J UNR9119G [•]	UNR9219J UNR9219G [•]	UNR5119 UNR5119G [•]	UNR5219 UNR5219G [•]
2.2	2.2			6 to 20	UNR911VJ UNR911VG [•]	UNR921VJ UNR921VG [•]	UNR511V UNR511VG [•]	UNR521V UNR521VG [•]
	10			30 ≤	UNR911HJ UNR911HG [•]	—	UNR511H UNR511HG [•]	—
4.7	10			80 ≤	UNR911MJ UNR911MG [•]	UNR921MJ UNR921MG [•]	UNR511M UNR511MG [•]	UNR521M UNR521MG [•]
	4.7			20 ≤	UNR911LJ UNR911LG [•]	UNR921LJ UNR921LG [•]	UNR511L UNR511LG [•]	UNR521L UNR521LG [•]
	10			30 ≤	UNR911FJ UNR911FG [•]	UNR921FJ UNR921FG [•]	UNR511F UNR511FG [•]	UNR521F UNR521FG [•]
	22			60 to 200	—	—	UNR511Z UNR511ZG [•]	UNR521Z UNR521ZG [•]
10	4.7			80 to 400	UNR911NJ UNR911NG [•]	UNR921NJ UNR921NG [•]	UNR511N UNR511NG [•]	UNR521N UNR521NG [•]
	10			160 to 460	UNR9116J UNR9116G [•]	UNR9216J UNR9216G [•]	UNR5116 UNR5116G [•]	UNR5216 UNR5216G [•]
	4.7			20 ≤	—	UNR921KJ UNR921KG [•]	—	UNR521K UNR521KG [•]
	47			35 ≤	UNR9111J UNR9111G [•]	UNR9211J UNR9211G [•]	UNR5111 UNR5111G [•]	UNR5211 UNR5211G [•]
22	10			80 ≤	UNR9114J UNR9114G [•]	UNR9214J UNR9214G [•]	UNR5114 UNR5114G [•]	UNR5214 UNR5214G [•]
	22			160 to 460	UNR9115J UNR9115G [•]	UNR9215J UNR9215G [•]	UNR5115 UNR5115G [•]	UNR5215 UNR5215G [•]
	47			60 ≤	UNR9112J UNR9112G [•]	UNR9212J UNR9212G [•]	UNR5112 UNR5112G [•]	UNR5212 UNR5212G [•]
	100			80 to 400	UNR911TJ UNR911TG [•]	UNR921TJ UNR921TG [•]	UNR511T UNR511TG [•]	UNR521T UNR521TG [•]
47	10			160 to 460	UNR9117J UNR9117G [•]	UNR9217J UNR9217G [•]	UNR5117 UNR5117G [•]	UNR5217 UNR5217G [•]
	22			30 ≤	UNR911DJ UNR911DG [•]	UNR921DJ UNR921DG [•]	UNR511D UNR511DG [•]	UNR521D UNR521DG [•]
	47			60 ≤	UNR911EJ UNR911EG [•]	UNR921EJ UNR921EG [•]	UNR511E UNR511EG [•]	UNR521E UNR521EG [•]
	100			80 ≤	UNR9113J UNR9113G [•]	UNR9213J UNR9213G [•]	UNR5113 UNR5113G [•]	UNR5213 UNR5213G [•]
100	100	160 to 460	UNR9110J UNR9110G [•]	UNR9210J UNR9210G [•]	UNR5110 UNR5110G [•]	UNR5210 UNR5210G [•]		
	—	80 ≤	UNR911AJ UNR911AG [•]	UNR921AJ UNR921AG [•]	—	—		
—	47	160 to 460	UNR911BJ UNR911BG [•]	UNR921BJ UNR921BG [•]	—	—		
	100	80 ≤	UNR911CJ UNR911CG [•]	UNR921CJ UNR921CG [•]	—	—		
0.27	5	80 ≤	—	—	—	UNR521W UNR521WG [•]		
2.2	2.2	-30 -50	-100	20 ≤	—	—	—	—
	10			40 ≤	—	—	—	—
3.1	4.6			60 ≤	—	—	—	—
	4.7			50 ≤	—	—	—	—
10	10			60 ≤	—	—	—	—
	47			80 ≤	—	—	UNR5154 UNR5154G [•]	—
4.7	—			80 ≤	—	—	UNR5174 UNR5174G [•]	—
	6.8			100 to 600	—	—	—	UNR5226 UNR5226G [•]
10	—			6 to 20	—	—	—	—
—	—			100 to 600	—	—	—	UNR5225 UNR5225G [•]

Equivalent circuit



• : Recommended products (Global package products)

Transistor with Built-in Resistors

Transistor with Built-in Resistors ($I_C = 100$ mA Series) (continued)

Resistor value (k Ω)		Absolute Maximum Ratings		Electrical Characteristics	Package			
					Mini3-G1		NS-A1 NS-B1	
R ₁	R ₂	V _{CE0} (V)	I _C (mA)	h _{FE}	PNP	NPN	PNP	NPN
0.51	5.1	-50 50	-100 100	20 \leq	UNR2118	UNR2218	UNR4118	UNR4218
1	10			30 \leq	UNR2119	UNR2219	UNR4119	UNR4219
2.2	2.2			6 to 20	UNR211V	UNR221V	—	—
	10			30 \leq	UNR211H	—	UNR411H	—
4.7	47			80 \leq	UNR211M	UNR221M	UNR411M	—
	4.7			20 \leq	UNR211L	UNR221L	UNR411L	UNR421L
	10			30 \leq	UNR211F	UNR221F	UNR411F	UNR421F
	22			60 to 200	UNR211Z	UNR221Z	—	—
10	47			80 to 400	UNR211N	UNR221N	UNR411N	—
	—			160 to 460	UNR2116	UNR2216	UNR4116	UNR4216
	4.7			20 \leq	—	UNR221K	—	UNR421K
	10			35 \leq	UNR2111	UNR2211	UNR4111	UNR4211
22	47			80 \leq	UNR2114	UNR2214	UNR4114	UNR4214
	—			160 to 460	UNR2115	UNR2215	UNR4115	UNR4215
	22			60 \leq	UNR2112	UNR2212	UNR4112	UNR4212
47	47			80 to 400	UNR211T	UNR221T	—	—
	—			160 to 460	UNR2117	UNR2217	UNR4117	UNR4217
	10			30 \leq	UNR211D	UNR221D	UNR411D	UNR421D
100	10			60 \leq	UNR211E	UNR221E	UNR411E	UNR421E
	—			80 \leq	UNR2113	UNR2213	UNR4113	UNR4213
—	47	160 to 460	UNR2110	UNR2210	UNR4110	UNR4210		
	100	80 \leq	—	—	—	—		
0.27	5	80 \leq	—	—	—	—		
	—	80 \leq	UNR211W	UNR221W	—	—		
2.2	2.2	80 \leq	UNR212X	—	—	—		
	10	20 \leq	UNR2121	UNR2221	UNR4121	UNR4221		
3.1	4.6	40 \leq	UNR2124	UNR2224	UNR4124	UNR4224		
	4.7	60 \leq	UNR212Y	—	—	—		
10	10	50 \leq	UNR2122	UNR2222	UNR4122	UNR4222		
	47	60 \leq	UNR2123	UNR2223	UNR4123	UNR4223		
4.7	—	80 \leq	UNR2154	—	—	—		
	—	80 \leq	—	—	—	—		
6.8	6.8	100 to 600	—	UNR2226	—	—		
10	—	6 to 20	—	UNR2227	—	—		
	—	100 to 600	—	UNR2225	—	—		

Equivalent circuit	(PNP Type)	
	(NPN Type)	



Transistor with Built-in Resistors

Composite Transistor with Built-in Resistors (NPN × 2 Series)

Resistance (kΩ)		Absolute Maximum Ratings		Electrical Characteristics	XN: Mini5-G1 XP: SMini5-G1 UP: SSMini5-F2 UP: SSMini5-F3●		XN: Mini6-G1 XP: SMini6-G1 UP: SSMini6-F1 UP: SSMini6-F2● NP: SSSMini6-F1		Basic Type
R ₁	R ₂	V _{CEO} (V)	I _C (mA)	h _{FE}	XN	XP	XP•UP	XP•UP•NP	
2.2	47	50	100 80 ^{*1}	80 ≤	XP0121M UP0121M UP0121MG●		XP0421M		UNR221M
								NP062AM ^{*1}	UNR32AM
4.7	4.7			20	XP0121L		XN0421L		UNR221L
	10				30 ≤		XN0421F		UNR221F
	47			80 ≤	XP0121N		UP0421N UP0421NG●		UNR221N
					80 to 400			NP062AN ^{*1}	UNR32AN
—	—			160 to 460	XN01216 XP01216		XN04216 XP04216 UP04216 UP04216G●	XN06216 XP06216	UNR2216
							NP042A6 ^{*1}	UNR32A6	
10	10			35 ≤	XN01211 XP01211 UP01211G●	XP02211	XN04211 XP04211 UP04211 UP04211G●	XN06211 XP06211	UNR2211
							NP042A1 ^{*1}	UNR32A1	
	47			80 ≤	XN01214 XP01214 UP01214 UP01214G●		XN04214 XP04214 UP04214 UP04214G●	XN06214 XP06214	UNR2214
							NP042A4 ^{*1}	UNR32A4	
—	—			160 to 460	XN01215 XP01215	XP02215	XN04215 XP04215 UP04215 UP04215G●	XN06215 XP06215	UNR2215
							NP042A5 ^{*1}	UNR32A5	
22	22			60 ≤	XN01212 XP01212 UP01212 UP01212G●		XN04212 XP04212 UP04212 UP04212G●	XP06212	UNR2212
							NP042A2 ^{*1}	UNR32A2	
—	—			160 to 460	XP01217		XP04217 UP04217 UP04217G●		UNR2217
							NP042A7 ^{*1}	UNR32A7	
47	22			60 ≤	XN0121E XP0121E UP0121EG●				UNR221E
					47	80 ≤	XN01213 XP01213 UP01213 UP01213G●		XN04213 XP04213 UP04213 UP04213G●
			NP042A3 ^{*1}	NP062A3 ^{*1}			UNR32A3		
	—	—	160 to 460	XN01210 XP01210	XP02210	XN04210 XP04210 UP04210 UP04210G●	XP06210	UNR2210	
					NP042A0 ^{*1}	NP062A0 ^{*1}	UNR32A0		

● : Recommended products (Global package products)

Mini5P/6P: P_T = 300 mW, SMini 5P/6P: P_T = 150 mW, SSMini5P/6P: P_T = 125 mW, SSSMini6P: P_T = 125 mW

Transistor with Built-in Resistors

Composite Transistor with Built-in Resistors (PNP × 2 Series)

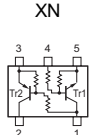
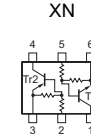
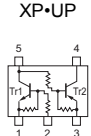
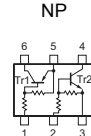
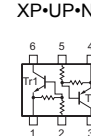
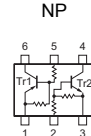
Resistance (kΩ)		Absolute Maximum Ratings		Electrical Characteristics	XN: Mini6-G1 XP: SMini6-G1 UP: SSMini6-F1 UP: SSMini6-F2● NP: SSSMini6-F1					Basic Type		
R ₁	R ₂	V _{CE0} (V)	I _C (mA)	h _{FE}	XN	XN	XN	XN				
					XP•UP	XP•UP•NP	NP	XP•NP	NP			
0.51	5.1	-50	-100 -80*1	20 ≤	XP01118					UNR2118		
1	10			30 ≤	XN01119 XP01119						UNR2119	
2.2	10			80 ≤	XN0111H XP0111H					NP061AM*1		UNR2111
	47			80 ≤	XN0111M XP0111M	XP0411M UP0411M UP0411MG●						UNR211M
4.7	10			30 ≤	XN0111F XP0111F UP0111FG●							UNR211F
	47			80 to 400						NP061AN*1		UNR31AN
	—			160 to 460	XN01116 XP01116	XN04116 XP04116 UP04116 UP04116G● NP041A6*1				XP06116		UNR2116 UNR31A6
10	10			35 ≤	XN01111 XP01111	XN04111 XP04111 UP04111 UP04111G● NP041A1*1				XP06111		UNR2111 UNR31A1
	47			80 ≤	XN01114 XP01114	XN04114 XP04114 NP041A4*1				XP06114		UNR2114 UNR31A4
	—			160 to 460	XN01115 XP01115	XN04115 XP04115 NP041A5*1				XP06115	NP061A5*1	UNR2115 UNR31A5
	22			60 ≤	XN01112 XP01112	XN04112 XP04112 UP04112 UP04112G● NP041A2*1				XP06112	NP061A2*1	UNR2112 UNR31A2
22	47			80 to 400		UP0411TG						UNR211T
	—			160 to 460	XP01117	XP04117 UP04117G● NP041A7*1						UNR2117 UNR31A7
	22			60 ≤			NP0G1AE*1					UNR31AE
47	47			80 ≤	XN01113 XP01113 UP01113 UP01113G●	XN04113 XP04113 UP04113 UP04113G● NP041A3*1				XN06113 XP06113		UNR2113 UNR31A3
	—			160 to 460	XN01110 XP01110					NP061A3*1	NP0J1A3*1	UNR2110 UNR31A0
	—			80 to 280			XN04130					—

● : Recommended products (Global package products)

Mini5P/6P: P_T = 300 mW, SMini 5P/6P: P_T = 150 mW, SSMini5P/6P: P_T = 125 mW, SSSMini6P: P_T = 125 mW

Transistor with Built-in Resistors

Composite Transistor with Built-in Resistors (PNP + NPN Series)

Resistance (kΩ)		Absolute Maximum Ratings		Electrical Characteristics	XN: Mini5-G1 XP: SMini5-G1 UP: SSMini5-F2 UP: SSMini5-F3●	XN: Mini6-G1 XP: SMini6-G1 UP: SSMini6-F1 UP: SSMini6-F2● NP: SSSMini6-F1	Basic Type					
R ₁	R ₂	V _{CE0} (V)	I _C (mA)	h _{FE}			PNP	NPN				
												
2.2	47	50/ -50	500/ -500*2 100/ -100 80/ -80*1	80 ≤			XP0431M UP0431MG●		UNR211M	UNR221M		
4.7	4.7			50 ≤					XN04322*2		UNR2122	UNR2222
	47			80 to 400					NP043AN		UNR31AN	UNR32AN
				80 ≤						XP0431N UP0431N UP0431NG●		UNR211N
10	10			160 to 460			XP03316		XN04316 XP04316 UP04316 UP04316G●		UNR2116	UNR2216
									NP043A6*1		UNR31A6	UNR32A6
	47			35 ≤			XN0A311 XP03311 UP03311G		XN04311 XP04311 UP04311 UP04311G●		UNR2111	UNR2211
10	47			80 ≤					NP043A1*1		UNR31A1	UNR32A1
				160 to 460					XN04314 XP04314 UP04314 UP04314G●		UNR2114	UNR2214
										NP043A4*1		UNR31A4
22	22			160 to 460					XN04315 XP04315 UP04315 UP04315G●		UNR2115	UNR2215
									NP0G3A5*1		UNR31A5	UNR32A5
	47	60 ≤			XN0A312 XP03312 UP03312 UP03312G●		XN04312 XP04312 UP04312 UP04312G●		UNR2112	UNR2212		
47	47	80 to 400					NP043A2*1		UNR31A2	UNR32A2		
							UP0431TG		UNR211T	UNR221T		
		80 ≤						XP04313 UP04313 UP04313G●		UNR2113	UNR2213	
		160 to 460					NP0G3A3*1	NP043A3*1	NP0H3A3*1	UNR31A3	UNR32A3	
							NP0G3A0*1			UNR31A0	UNR32A0	

● : Recommended products (Global package products)

Mini5P/6P: P_T = 300 mW, SMini 5P/6P: P_T = 150 mW, SSMini5P/6P: P_T = 125 mW, SSSMini6P: P_T = 125 mW

Transistor with Built-in Resistors

Composite Transistor with Built-in Resistors (PNP + NPN Series) (continued)

Resistance (kΩ)				Absolute Maximum (Tr1/Tr2)		Electrical Characteristics (Tr1/Tr2)		XP: SMini5-G1 UP: SSMini5-F2 UP: SSMini5-F3•				XP: SMini6-G1 UP: SSMini6-F1 UP: SSMini6-F2• NP: SSSMini6-F1				Basic Type	
Tr1		Tr2		V _{CEO} (V)	I _C (mA)	h _{FE}	XN		XN		PNP	NPN					
R ₁	R ₂	R ₁	R ₂				XP•UP	NP	XP•UP•NP	NP							
4.7	4.7	1	10	50/ -50	100/ -100	80 to 400/ 30 ≤				XP04286			UNR2119	UNR221N			
	47	4.7	—			80 to 400/ 160 to 460	XP03391								UNR211N	UNR2216	
10	10	0.51	5.1	50/ -30	100/ -100	35 ≤/ 20 ≤							UNR2118	UNR2211			
		10	47			35 ≤/ 80 ≤	UP03397 UP03397G•							UNR2154	UNR2211		
	22	—	50/ -50	80/ -80	160 to 460					NP063D3			UNR31A0	UNR32A5			
	—	47	—	80/ -80	80 to 400/ 20 ≤			NP0G3D2					UNR31AT	UNR32AL			
47	0.51	5.1	10	50/ -50	100/ -100	80 ≤/ 20 ≤		UP03394 UP03394G•					UNR2118	UNR2213			
						80 ≤/ 30 ≤			XP04387 UP04387 UP04387G•			UNR2119	UNR2213				
	4.7	4.7	-50/ 50	80/ -80	80 ≤/ 20 ≤			NP0G3D1					UNR31A3	UNR32AL			
						100/ -500	80 ≤/ 50 ≤			XN04381			UNR2122	UNR2213			
	10	47	50/ -50	100/ -100	80 ≤/ 30 ≤			XP03383 UP03383 UP03383G•			UP04383G•			UNR211F	UNR2213		
								XP03390 UP03390 UP03390G•			UP04390 UP04390G•			UNR2114	UNR2213		
	22	—	-50/ 50	-80/ 80	80 ≤/ 80 ≤						NP04390			UNR31A4	UNR32A3		
									NP0G3D3			UNR31A3	UNR32AT				
—	—	4.7	4.7	-12/ 50	-500/ 100	270 to 680/ 80 to 400				UP04A8MG•			2SA2161	UNR221N			
				50/ -50	100/ -100	150 to 460/ 20 ≤				XN04A88			UNR211S	2SD0601A			

• : Recommended products (Global package products)

Mini5P/6P: P_T = 300 mW, SMini 5P/6P: P_T = 150 mW, SSMini5P/6P: P_T = 125 mW, SSSMini6P: P_T = 125 mW



Bipolar Power Transistors

Low-Frequency Amplifiers

Application	Absolute Maximum Ratings		Electrical Characteristics					Package						
	V _{CEO} (V)	I _C (A)	V _{CE(sat)} max. (V)	I _C (A)		I _B (mA)	h _{FE}		U-G2	P _C (W)	TO-126B-A1		MT-3-A1	
							f _T (MHz)	I _C *I _E (A)			P _C (W)	P _C (W)		
General-purpose	35	1	0.5	0.5	50	85 to 340	0.5			(2SA0885 2SC1846	1.2 1.2	2SD2133 (V _{CEO} = 50 V)	1.5	
	40	1.5	1.0	-1.5 2	-150 200	80 to 220	1	2SB0968	20	2SA0886	1.2			
	50	2/1.5	0.3	1.0	50	120 to 340	0.2	2SB1574	10			(2SB1435 2SD2178	1.5 1.5	
	60	3	1.2	3.0	375	40 to 250	1					(2SB1416 2SD2136	1.5 1.5	
	100	0.5	0.4	0.5	50	65 to 330	0.15			(2SA0794 2SC1567	1.2 1.2			
	120							(2SA0794A 2SC1567A	1.2 1.2					
Low V _{CE(sat)}	18	1	0.3	1.0	50	90 to 280	0.5			2SC1568	1.2			
	20	3		2.6	40	100 to 450	2.6						2SB1593	1.5
High-h _{FE}	60	3	1.0	2.0	50	0.5k to 2.5k	0.5					2SD2573	1.5	
		2						2SD2453	10					
Darlington	50	1	1.8	1.0	1	4k to 40k	1			2SD0946A	1.2			
	80									2SD0946B	1.2	2SD2220	1.5	
	100							2	1.5	1.0	1	1		2SD1640
High breakdown voltage	400	0.1	2.5	0.05	5	30 ≤	0.03			2SB1011	1.2			
TV	Chroma input	250	0.1	1.2	0.05	5	⊗100	*0.01			2SC2258	1.2		
		300		1.5	0.03	3	⊗140	*0.02			2SC3063	1.2		
	Horizontal drive	300	0.2	1.0	0.05	5	⊗80	*0.01			2SC4212	1.2		

(: Complementary pair P_C: T_C = 25°C

Bipolar Power Transistors

Low-Frequency Amplifiers (continued)

Application	Absolute Maximum Ratings		Electrical Characteristics				Package							
	V_{CE0} (V)	I_C (A)	$V_{CE(sat)}$ max. (V)	I_C (mA)	h_{FE}	I_C (mA)	MiniP3-F2 [●]	P_C (W)	MT-2-A1	P_C (W)	TO-92NL-A1	P_C (W)	TO-92L-A1	P_C (W)
General-purpose	25	0.5	0.6	300	85 to 340	150					2SC4208	1.0		
	50									2SC4208A	1.0			
	80					130 to 330		(2SB0767G [●] 2SD0875G [●])	1.0 1.0			(2SA1533 2SC3939)	1.0 1.0	(2SA0777 2SC1509)
	25	1.0	0.4	500	85 to 340	500					2SC3940	1.0	2SA0683	1.0
	50						(2SB0766G [●] 2SD0874G [●])	1.0 1.0	(2SB1322A 2SD1994A)	1.0 1.0	2SC3940A	1.0	(2SA0684 2SC1384)	1.0 1.0
	40	1.5	1.0	1.5 A	80 to 220	1 A	(2SB1599G [●] 2SD2457G [●])	1.0 1.0						
	50	2.0	0.3	1 A	120 to 340	200	(2SB1440G [●] 2SD2185G [●])	1.0 1.0	(2SB1434 2SD2177)	1.0 1.0				
	60								2SD2177A	1.0				
	50	5.0	2 A			500			2SD2179	1.0				
	80	1.0	0.3	500	120 to 340	100	(2SA1890G [●] 2SC5026G [●])	1.0 1.0	(2SA1674 2SC4391)	1.0 1.0				
150	2SD2459G [●]						1.0							
High- h_{FE}	20	0.7	0.4	500	1k to 2.5k	150			2SD2259	1.0				
Low $V_{CE(sat)}$	20	0.5	0.4	500	200 to 800	500	2SD2210G [●]	1.0						
	10	1.0	0.15							2SD2358	1.0			
	20		0.5	1.0 A	130 to 280	500	(2SB0956G [●] 2SD1280G [●])	1.0 1.0						
	25		3.0	0.22	1.4 A	130 to 450	1.4 A				2SB1592	1.0		
	20	5.0	1.0	3.0 A	120 to 315	2 A	2SB1073G [●] 2SD1119G [●]	1.0 1.0				2SB0873	1.0	
Darlington	80	1.0	1.8	1 A	4k to 40k	1 A	2SD1511G [●]	1.0						
	50	0.5	2.5	500	4k to 20k	500			2SD2598	1.0				
		1.0	1.8						2SD2258	1.0				
	100	2.0	1.5	1 A	4k to 40k	1 A			2SD2067	1.0				

(: Complementary pair ● : Recommended products (Global package products)



Bipolar Power Transistors

Low-Frequency Amplifiers (continued)

Application	Absolute Maximum Ratings		Electrical Characteristics				Package												
	V_{CE0} (V)	I_C (A)	$V_{CE(sat)}$ max. (V) ▲ f_T (MHz)	I_C * I_E (mA)	h_{FE}	I_C (mA)	MiniP3-F2●	P_C (W)	MT-2-A1	P_C (W)	TO-92NL-A1	P_C (W)	TO-92L-A1	P_C (W)					
High breakdown voltage	100	0.5	0.6	500	130 to 330	150	(2SB0789G● 2SD0968G●	1.0 1.0											
	120														1.0	300	90 to 330	2SD2225	1.0
	400	0.1	1.5	50	30 ≤	30	2SD2413G●	1.0											
		0.5		250			2SD2565	1.0											
TV Chroma output	200	0.07	▲80	*10	30 to 220	5					2SB1221	1.0	2SA0879	1.0					
																	2SC1573	1.0	
	300																	2SC1573A	1.0
	400																	2SC1573B	1.0
	300													2SC5419	1.0	2SC3941	1.0		

(: Complementary pair ● : Recommended products (Global package products)

Bipolar Power Transistors

For Power Amplification

Application	Absolute Maximum Ratings		Electrical Characteristics			Package												
	V _{CEO} (V)	I _C (A)	V _{CE(sat)} max. (V)	I _C (A)	I _B (mA)	TO-220F-A1				TO-220D-A1				N-A1 N-G1				
						PNP	P _C (W)	NPN	P _C (W)	PNP	P _C (W)	NPN	P _C (W)	PNP	P _C (W)	NPN	P _C (W)	
General-use	60	4	1.5	4	400			2SD2000	35									
						2SB0942	40	2SD1267	40			2SB0930	40	2SD1253	40			
						2SB0942A	40	2SD1267A	40			2SB0930A	40	2SD1253A	40			
	80	3	1.2	3	375					2SB1548A	25	2SD2374A	25					
			0.8						2SB1724	30	2SD2693	25						
	60	3	0.8	3	375					2SB1724A	30	2SD2693A	25					
	80																	
	80	10	0.5	6	300			2SD2151	30									
	100	5				2	3			2SD1499	40							
	150	2	1	0.5	50									2SB0928	30	2SD1250	30	
	180										2SA2118	25	2SC5935	25	2SB0928A	30	2SD1250A	30
	250	0.75	1	1	200			2SD1263	35							2SD1249	35	
300							2SD1263A	35								2SD1249A	35	
Low V _{CE(sat)}	20	10	0.6	10	330	2SB0948	40							2SB0936	40			
	40					2SB0948A	40						2SB0936A	40				
	50	3	0.5	5	250					2SA2064	25	2SC5779	25					
	60			3	375					2SA2057	20	2SC5739	20					
	80	4	0.5	2	100									2SB0931	30			
				3	150	2SB0944	35	2SD1269	35									
		5	1	125	2SB0945	40					2SB0933	40						
	100	7	0.5	5	250	2SB0946	40	2SD1271	40					2SB0934	40	2SD1257	40	
								2SD1271A	40					2SD1257A	40			
	180	1.5	1	1	100					2SA2140	20	2SC5993	20					
High-h _{FE}	60	6	0.5	5	100			2SD1474	40						2SD1719	40		
		3	1	2	50	2SB1299	40				2SD2375	25		2SD1259	40			
	150	1	1	0.5	20													
								2SD1272	40						2SD1258	40		
Darlington	60	2	2.5	2	8			2SD1275	35					2SB0937	35	2SD1260	35	
	80							2SD1275A	35				2SB0937A	35	2SD1260A	35		
	60	4	2	3	12					2SB1623	30	2SD2420	30	2SB0938	40	2SD1261	40	
	80									2SB1623A	30	2SD2420A	30	2SB0938A	40	2SD1261A	40	
	60	8	1.5	4	8	2SB0951	45	2SD1277	45					2SB0939	45	2SD1262	45	
	80					2SB0951A	45	2SD1277A	45				2SB0939A	45	2SD1262A	45		
	120					2SB1193	50											
	400	6	2	7	70	70										2SD1611	40	
		7							2SD1535	50								
	100	5	1.5	3	3			2SD1633	30									

P_C: T_C = 25°C



Bipolar Power Transistors

For Power Amplification (continued)

Application	Absolute Maximum Ratings		Electrical Characteristics			Package							
	V _{CEO} (V)	I _C (A)	V _{CE(sat)} max. (V)	I _C (A)	I _B (mA)	I-A1 I-G1				MT-4-A1			
						PNP	P _C (W)	NPN	P _C (W)	PNP	P _C (W)	NPN	P _C (W)
General-use	60	1	1	1	125	2SB1169	15						
	80					2SB1169A	15						
	60	3	1.2	3	375	2SB1172	15	2SD1742	15				
	80					2SB1172A	15	2SD1742A	15	2SB1417A	15	2SD2137A	15
	150	2	1	0.5	50			2SD1741	15				
	180							2SD1741A	15				
Low V _{CE(sat)}	20	10	0.6	10	330	2SB1148	15						
	40					2SB1148A	15						
	60	3	0.8	3	375					2SA2067	15	2SC5788	15
	80					2	100	2SB1174	15				
		3	150	2SB1175	15	2SD1745	15						
		4	125	2SB1176	15								
		5				2SD1747	15						
	100	7	0.5	5	250			2SD1747A	15				
	180					1	100						
High-h _{FE}	60	6	0.5	5	100			2SD1755	15				
	80							2SD1754	15				
	60	3	1	2	50			2SD1754A	15				
	80											2SD2139	15
Darlington	60	2	2.5	2	8					2SB1418	15	2SD2138	15
	80									2SB1418A	15		
	60	4	2	3	12	2SB1179	15	2SD1749	15				
	80					2SB1179A	15	2SD1749A	15				
	60	8	1.5	4	8			2SD1750	15				
	80							2SD1750A	15				

P_C: T_C = 25°C

For Large-power Amplification

Application	Absolute Maximum Ratings		P _C (W) T _C = 25°C	Electrical Characteristics			Package
	V _{CEO} (V)	I _C (A)		V _{CE(sat)} max. (V)	I _C (A)	I _B (mA)	TOP-3F-A1
							NPN
General-use	100	5	60	2	3	300	2SD1485
Low V _{CE(sat)}	80	10	70	0.5	6		2SD1705

Bipolar Power Transistors

For Switching

Application	Absolute Maximum Ratings			Electrical Characteristics				Package							
	V_{CBO} (V)	V_{CEO} (V)	I_C (A)	$V_{CE(sat)}$ max. (V)	I_C (A)	I_B (mA)	t_f (μ s)	TO-220F-A1	P_C (W)	TO-220D-A1	P_C (W)	N-A1 N-G1	P_C (W)	TOP-3F-A1	P_C (W)
Switching	900	800	3	0.6	0.8	160	1	2SC3743	40					2SC4359	70
	1 000		5	1.5	3	600	0.5							2SC3507	80
High-speed switching	500	400	3	1	1.5	300	0.3			2SC4953	30	2SC5104	30		
					3	600		2SC4559	40						
	900	800	3	1.5	0.8	160		2SC3979	40					2SC4420	70
								2SC3979A	40						

P_C : $T_C = 25^\circ\text{C}$

For TV and CRT Monitor

Application	Absolute Maximum Ratings		Electrical Characteristics		Package	
	V_{CBO} (V)	I_C (A)	$V_{CE(sat)}$ max. (V)	t_f typ (μ s)	TO-220D-A1	P_C (W)
VM circuit	-180	-1.5	-0.5	0.1	2SA2140	20
	180	1.5	0.5		2SC5993	20

P_C : $T_C = 25^\circ\text{C}$

Power MOS FETs

Power MOS FETs

Absolute Maximum Ratings			P _D (W)	Electrical Characteristics					Package			
V _{DSS} (V)	V _{GSS} (V)	I _D (A)		R _{DS(on)} max. (Ω)	Y _{fs} typ. (S)	t _{d(on)} typ. (ns)	t _f typ. (ns)	t _{d(off)} typ. (ns)	N-A1	TO-220C-G1	TO-220D-A1	U-G2
-200	±20	2	10	2	1.7	12	25	50				2SJ0582
60		5		0.135	4.0	15	170	550				2SK3022
		20	20	0.05	12	20	500	1 500				2SK3024
80 ± 10	±15	10	30	0.23	5.5	t _{on} 500	900	1 900	2SK2339			
100	±20	25	50	0.1	11	15	35	65		2SK3269		
110	±25	28	40	0.052	21	30	90	150			2SK4174	
200	±30	30	50		22	32	88	170		2SK3995		
		40	40								2SK4208	
450	±30	5	35	1.3	2.5	25	35	80			2SK3043	
500		2.5	30	4.0	1.5	15	30	55			2SK3045	
600		3	35	2.5	2.5		40	90			2SK3048	
800		2	30	7.0	1.1		25	60			2SK3047	

IGBT Discrete

IGBT

Absolute Maximum Ratings				Electrical Characteristics		Package	
V _{CES} (V)	I _C (A)	I _{CP} (A)	P _C (W)	V _{CE(sat)} max. (V)	t _f typ. (ns)	TO-220F-A1	TO-220D-A1
300	30	120	40	2.5	150	2PG001	△ 2PG004
		200			170		△ 2PG005
400	40	160		2.4	190	2PG002	
430		200			200	2PG003	
510		200		2.5	175		2PG006
					185		2PG009

△: Tentative

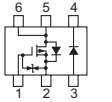
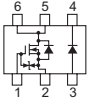
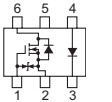
Multi Chip Discrete Devices

Composite Transistors.....	J2
MOS FET + SBD (For Power Management)	J2
TR + load device.....	J2
Transistor with built-in resistors + SBD.....	J2



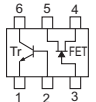
Composite Transistors

MOS FET + SBD (For Power Management)

Application	FET Polarity	MOS FET								SBD				Package					
		Absolute Maximum Rating			Electrical Characteristics					Absolute Maximum Rating		Electrical Characteristics		WSSMini6-F1		WSSMini6-F1		WSMini6-F1	
		V_{DSS} (V)	V_{GSS} (V)	I_D (A)	$R_{DS(on)}$ (mΩ)	V_{GS} (V)	C_{iss} (pF)	t_{on} typ. (ns)	t_{off} typ. (ns)	V_R (V)	I_F (A)	V_F max. (V)	I_R max. (μA)		PD (W)		PD (W)		PD (W)
DC-DC Converter	Pch	-20	±10	-2.0	80	-4.0	300	14	112	15	0.7	0.45	250	MTM86627	0.54				
					100	-2.5				20	0.8	0.47	80	△ MTM86627A	0.54				
	Nch	20	±10	2.2	80	4.0	280	13	38	20	0.8	0.47	80			0.54			
				2.0	100	2.5				1.0	80						MTM76720	0.7	

△: Tentative

TR + load device

Application	Absolute Maximum					Electrical Characteristics			Package	
	TR		CCD load device		P_T (mW)	TR		CCD load device	SSMini6-F1 SSMini6-F2●	
	V_{CEO} (V)	I_C (mA)	V_{max} (V)	I_{max} (mA)		f_T typ. (MHz)	h_{FE}		I_P (mA)	
CCD output circuit	20	15	40	10	125	640	65 to 160	3.5 to 5.5	UP05C8B UP05C8BG●	
		50				1 000	25 to 250		UP05C8G UP05C8GG●	
	50		1 300	100 to 250		3.8 to 5.2	UP05C8GF●			
							5.0 to 7.0	UP05C8P UP05C8PG●		

●: Recommended products (Global package products)

Transistor with built-in resistors + SBD

Application	Absolute Maximum				Electrical Characteristics				Package	
	TR		SBD		TR		SBD		P_T (mW)	SSMini5-F2 SSMini5-F3●
	V_{CEO} (V)	I_C (A)	V_R (V)	I_F (A)	$V_{CE(sat)}$ max. (V)	$R1/R2$ (kΩ)	V_F typ. (V)	I_R typ. (μA)		
Digital circuit	-50	-0.08	20	0.2	-0.25	47/47	0.5	0.1	125	UP0KG8D UP0KG8DG●














●: Recommended products (Global package products)

Diodes

Switching Diodes	K2
Switching Diodes	K2
Band Switch Diodes	K5
PIN Diodes	K5
Schottky Barrier Diodes	K6
For Small Signal (I_F = Less than 1 000 mA)	K6
For Power	K12
Rectifier Diodes	K13
Fast Recovery Diodes	K13
For Small Signal	K13
For Power	K13
Zener Diodes	K14
Zener Diodes Series	K14
Low C_t Series	K17
Surge Protective Diode	K17
Bidirectional Zener Diode	K17
High ESD (30 kV) Protection Device	K17
High Surge Absorption Diode	K17
































Switching Diodes

Switching Diodes

Electrical Characteristics				Surface mounting package							
V_R (V)	I_F (mA)	I_R max. (μ A)	t_{rr} max. (ns)	ML2-N1	ML3-N2	USSMini2-F1	SSSMini2-F2 SSSMini2-F3●	SSSMini3-F1 SSSMini3-F2●	SSMini2-F1 SSMini2-F4●	SSMini3-F2 SSMini3-F3●	SSMini4-F1
200	100	1.0	60						MA2S101 MA2S1010G●  ($V_R = 250$ V)		
			—								
150	200	0.2	—								
			—								
80	100	0.1	10/3								
			10					MAS3132D MAS3132DG● 	MAS3132D MAS3132DG● 		
			3		MA36132E 			MAS3132E MAS3132EG● 	MAS3132E MAS3132EG● 		
					MA26111 	MAU2111 	MA27111 MA271110G● 	MA2S111 MA2S1110G● 	MA3S132A MA3S132AG● 	MA4S111 	
									MA3S132K MA3S132KG● 		

















● : Recommended products (Global package products)

Switching Diodes

Surface mounting package							
SMini2-F1 SMini2-F3●	SMini3-F1 SMini3-F2●	SMini4-F1 SMini4-F2●	SMini5-F1	SMini6-F1	Mini3-G1	Mini4-G1	Mini6-G1 Mini6-G2*
MA2Z001 MA2Z0010G● 	MA3X100 MA3X1000G● 				MA3X199 		
					MA3X158 	MA4X174 	
MA2J115 MA2J1150G● 							MA6X129 
MA2J114 MA2J1140G● 							
						MA4X193 	MA6X126 
	MA3J142D MA3J142DG● 		MA5J002D 		MA3X152D 		MA6X122* 
	MA3J142A MA3J142AG● 						MA6X127* 
	MA3J142E MA3J142EG● 		MA5J002E 		MA3X152E 		MA6X123* 
							MA6X124* 
							MA6X128* 
MA2J111 MA2J1110G● 		MA4Z159 MA4Z1590G● 		MA6Z121 	MA3X152A 	MA4X159A 	MA6X121 
	MA3J142K MA3J142KG● 				MA3X152K 	MA4X160A 	

Switching Diodes

Switching Diodes (continued)

Electrical Characteristics				Surface mounting package							
V_R (V)	I_F (mA)	I_R max. (μ A)	t_{rr} max. (ns)	SSMini3-F2 SSMini3-F3●	SMini2-F1 SMini2-F3●	SMini3-F1 SMini3-F2●	SMini4-F2●	Mini3-G1	Mini4-G1	Mini6-G1	
80	100	0.1	3	MA3S137 MA3S1370G● 		MA3J147 MA3J1470G● 		MA3X157A 			
			—	MA3S133 MA3S1330G● 		MA3J143A MA3J143AG● 		MA3X153A 			
	200	0.05	10		MA2J113 MA2J1130G● 		MA4J1130G● 				
40	100	0.1	3						MA4X160 		
			—			MA3J143 MA3J1430G● 		MA3X153 		MA6X125 	
35		0.025	10								
40	200	0.05	10		MA2J112 MA2J1120G● 						
			20								
35	100	0.005	0.2 ms								
40		0.01	100		MA2J116 MA2J1160G● 			MA3X198 	MA4X194 		

● : Recommended products (Global package products)

Switching Diodes

Band Switch Diodes

Part No.	V_R (V)	I_F max. (mA)	C_D typ. (pF)	V_R (V)	r_f typ. (Ω)	Package
MA2S077 MA2S077G●	35	100	0.9	6	0.65	SSMini2-F2 SSMini2-F4●
MA27077 MA27077G●						SSSMini2-F1 SSSMini2-F3●
MA26077						ML3-N2

● : Recommended products (Global package products)

PIN Diodes

Part No.	V_R (V)	I_F (mA)	C_t max. (pF)	V_R	r_f max. (Ω)	I_F (mA)	Package	
				(V)				
MA2JP02 MA2JP020G●	60	100	0.5	1	2.0	10	SMini2-F1 SMini2-F3●	
MA3JP02F MA3JP02FG●		100 (65)					SMini3-F1 2 elements contained SMini3-F2● 2 elements contained	
MA2SP01 MA2SP010G●		100	0.8		1.0			
MA2SP02 MA2SP020G●			0.5		2.0			
MA2SP05 MA2SP050G●		50	2.4		0		5.5	SSMini2-F1 SSMini2-F4●
MA2SP06 MA2SP060G●		100	0.55		1		1.0	
MA27P01 MA27P010G●			0.8				2.0	
MA27P02 MA27P020G●			0.5				1.2	
MA27P06 MA27P060G●			0.6				1.5	
MA27P07 MA27P070G●			0.35				SSSMini2-F2 SSSMini2-F3●	
MA27P11 MA27P110G●		50	0.8		0			
MA27P12 MA27P120G●		100	typ 0.27		1		typ 0.8	
MA26P01			0.8				1.0	
MA26P02			0.5				2.0	
MA26P07			0.35				1.5	ML2-N1

● : Recommended products (Global package products)



Schottky Barrier Diodes

For Small Signal ($I_F = \text{Less than } 1\,000\text{ mA}$)

Application	Electrical Characteristics					Package											
	V_R (V)	I_F (mA)	V_F max. (V)	I_F (mA)	I_R max. (μA)	ML2-N1	USSMini2-F1	SSSMini2-F2 SSSMini2-F3	SSSMini3-F1 SSSMini3-F2	SSMini2-F1 SSMini2-F4	SSMini3-F2 SSMini3-F3	SSMini4-F1	SMini2-F1 SMini2-F3	SMini3-F1 SMini3-F2	SMini4-F1 SMini4-F2		
For high frequency wave detection	20	35	0.41	1	0.2					MA2SE01 MA2SE010G	MA3SE01 MA3SE010G						
			0.40				MA27E02 MA27E020G		MA3SE02 MA3SE020G								
For switching mode wave detection	20	100	0.40	100	20								MA2ZD14 MA2ZD140G		MA4ZD14 MA4ZD140G		
			0.58				MA27D27 MA27D270G										
	30	30	1	0.30	30								MA2J732 MA2J7320G				
														MA3J745E MA3J745EG			
														MA4SD01			
	30	30	1	0.35	0.5												
						MA26728	MAU27280G	MA27728 MA277280G		MA2S728 MA2S7280G	MA3S781 MA3S7810G		MA2J728 MA2J7280G	MA3J741 MA3J7410G			
30	30	1	0.40	1													

• : Recommended products (Global package products)

Schottky Barrier Diodes

For Small Signal ($I_F = \text{Less than } 1\,000\text{ mA}$) (continued)

Application	Electrical Characteristics					Package										
	V_R (V)	I_F (mA)	V_F max. (V)	I_F max. (mA)	I_R max. (μA)	ML2-N1	USSMini2-F1	SSSMini2-F2 SSSMini2-F3●	SSSMini3-F1 SSSMini3-F2	SSMini2-F1 SSMini2-F4●	SSMini3-F2 SSMini3-F3●	SSMini4-F1	SSMini5-F3	SMini2-F1 SMini2-F3●	SMini3-F1 SMini3-F2●	SMini4-F1 SMini4-F2●
For switching mode wave detection	30	100	0.42	120		MAU2D29	MA27D29 MA27D290G●		MA2SD29 MA2SD290G●	MA3SD29F MA3SD29FG●		MA5SD29XG				
						MA27784 MA277840G●		MA2S784 MA2S7840G●			MA2Z784 MA2Z7840G●	MA3Z792 MA3Z7920G●				
											MA3Z792D MA3Z792DG●					
											MA3Z792E MA3Z792EG●					
											MA3Z793 MA3Z7930G●					
				0.58	2	MAU2D30	MA27D30 MA27D300G●		MA2SD30 MA2SD300G●				MA5SD30XG			
45		0.60	5						MA3SD05F MA3SD05FG●	MA4SD05X	MA5SD05XG				MA4ZD03 MA4ZD030G●	
50		0.55	30									MA2Z785 MA2Z7850G●				
For rectification	15		0.39	50					MA2SD25 MA2SD250G●							
	20	200	200	15					MA2SD19 MA2SD190G●							
				20					MA2SD10 MA2SD100G●	MA4SD10						
				2								MA2J704 MA2J7040G●				
			0.58	1					MA2SD24 MA2SD240G●							
30		0.47	200					MA2SD31 MA2SD310G●								

● : Recommended products (Global package products)



Schottky Barrier Diodes



















For Small Signal ($I_F = \text{Less than } 1\,000\text{ mA}$) (continued)

Application	Electrical Characteristics					Package										
	V_R (V)	I_F (mA)	V_F max. (V)	I_F (mA)	I_R max. (μA)	ML2-N1	USSMini2-F1	SSSMini2-F2 SSSMini2-F3	SSSMini3-F1 SSSMini3-F2	SSMini2-F1 SSMini2-F4●	SSMini3-F2 SSMini3-F3	SSMini4-F1	SMini2-F1 SMini2-F3●	SMini3-F1 SMini3-F2●	SMini4-F1	
For rectification	20	300	0.40	300	30								MA2Z748 MA2Z7480G●			
		500	0.42	500	200									MA2ZD18 MA2ZD180G●		
	700	0.55	700	10									MA2ZD02 MA2ZD020G●	MA3J702 MA3J7020G●		
	30	200	0.45	700	200									MA3ZD12 MA3ZD120G●		
	40	500	0.55	200	50									MA2J729 MA2J7290G●	MA3J744 MA3J7440G●	
50	200	0.56	200	5					MA2SD32 MA2SD320G●							
50	200	0.55	500	100									MA2Z720 MA2Z7200G●	MA3J700 MA3J7000G●		
													MA2J727 MA2J7270G●			

● : Recommended products (Global package products)

Schottky Barrier Diodes




















For Small Signal ($I_F = \text{Less than } 1\,000\text{ mA}$) (continued)

Application	Electrical Characteristics					Package						
	V_R (V)	I_F (mA)	V_F max. (V)	I_F (mA)	I_R max. (μA)	SMini6-F1	Mini2-F1	Mini3-G1	Mini4-G1	Mini6-G1		
For switching mode wave detection	15	30	0.40	1	0.2			MA3X704 				
								MA3X704A 				
	MA6Z718 					MA3X704D 	MA4X713 	MA6X718 				
										MA3X704E 	MA4X714 	
										MA3X716 		
										MA3X715 		
										MA3X717 		
										MA3X717E 		
										MA3X786 		
										MA3X786D 		
										MA3X786E 		
										MA3X791 		
										MA3X787 	MA4X796 	
			50									
					100	0.55	100	15				

K

















Schottky Barrier Diodes

For Small Signal ($I_F = \text{Less than } 1\,000\text{ mA}$) (continued)

Application	Electrical Characteristics					Package					
	V_R (V)	I_F (mA)	V_F max. (V)	I_F (mA)	I_R max. (μA)	SMini6-F1	Mini2-F1	Mini3-G1	Mini4-G1	Mini6-G1	
For rectification	20	500	0.50	500	30			MA3X748 			
					10			MA3X703 			
	30	200	0.55	200	50			MA3X721 	MA4X724 		
								MA3X721D 	MA4X726 		
								MA3X721E 			
								MA3X740 			
		500		500			MA2YD33 				
		700		700	80			MA3X701 			
	40	500		500	100			MA3X720 			
	50	200	0.65	200	50			MA3X727 	MA4X746 		
								MA3X788 			
	60	500	0.56	500	100			MA3X789 			
								MA22D26 			
		800	0.58	800				MA2YD26 			
	100	300	0.57	300	200			MA22D17 			
			0.58					MA2YD17 			

Schottky Barrier Diodes

For Small Signal ($I_F = 1\ 000\ \text{mA}$ or more)







Application	Electrical Characteristics					Package							
	V_R (V)	I_F (mA)	V_F max. (V)	I_F (mA)	I_R max. (μA)	SMini6-F1	SMini2-F1 SMini2-F2●** SMini2-F3●	Mini2-F1	Mini3-G1	Mini4-G1	Mini6-G1	TMiniP2-F1	
For rectification	15		0.40		1 500			MA2YD21 	MA3XD21 				
			0.45		200				MA3XD11 				
	20		0.43		100			MA22D15 					
			0.45					MA2YD15 	MA3XD15 				
	25	1 000	1 000	0.53	40			MA22D23 					
				0.55				MA2YD23 					
	30			0.42	100			MA21D380G●** 					
				0.38		1 200			MA21D340G●** 				
				0.49		40			MA21D350G●** 				
	35	5 000	5 000	0.46	100			MA21D382G●** 					
				0.45		500			MA22D28 				
				0.37		2 000			MA22D41 				
													MA24D54 
													MA24D70 

● : Recommended products (Global package products)




Schottky Barrier Diodes

For Small Signal ($I_F = 1\ 000\ \text{mA}$ or more) (continued)

Application	Electrical Characteristics					Package																																					
	V_R (V)	I_F (mA)	V_F max. (V)	I_F (mA)	I_R max. (μA)	SMini6-F1	SMini2-F1 SMini2-F2 SMini2-F3	Mini2-F1	Mini3-G1	Mini4-G1	Mini6-G1	TMiniP2-F1																															
For rectification	40	1 570	0.57	1 500	100			MA22D39																																			
																																											
		2 000	0.48	2 000	200																																						
																																											
		3 000	0.51	3 000	50																																						
																																											
		3 000	0.55	3 000	200																																						
																																											
		3 000	0.42	2 000	50																																						
3 000	0.53	3 000	50																																								
60	1 000	0.58	1 000					30							MA22D40																												
																																											
60	3 000	0.60	3 000					150																																			
																																											

△: Tentative

For Power


Category	Part No.	Electrical Characteristics				Equivalent Circuit	Package		
		V_R (V)	$I_{F(AV)}$ (A)	V_F max. (V)	I_R (mA)				
Cathode-common type	MA3D749	40	5	0.55	1		TO-220D-A1		
	MA3D749A	45							
	MA3D750	40	10		3				
	MA3D750A	45							
	MA3D752	40	20		5				
	MA3D752A	45							
	MA3D755	60	5		0.58			1	TO-220D-A1
	△ MA3DD82		20		0.67			0.5	
	MA3D799	30	10		0.47			3	TO-220D-A1

△: Tentative

Rectifier Diodes




Fast Recovery Diodes

For Small Signal

Part No.	Electrical Characteristics				Equivalent Circuit	Package
	V_{RRM} (V)	$I_{F(AV)}$ (A)	V_F max. (V)	t_{rr} max. (ns)		
MA22F20	200	1	0.98	35		Mini2-F1
MA24F41	400		1.3	45		TMiniP-F1
△ MA24F70	700		1.7			
MA2YF80	800	0.2	2.5	Mini2-F1		

△: Tentative

For Power



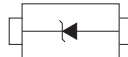



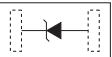
Category	Part No.	Electrical Characteristics				Equivalent Circuit	Package
		V_{RRM} (V)	$I_{F(AV)}$ (A)	V_F max. (V)	t_{rr} max. (ns)		
Single type	MA2DF31	300	5	1.3	30		TO-220D-B1*
	MA2DF60	600		1.7	25		
	MA2DF62		10	2.5			
	MA3DF30	300	20	1.4	25		TO-220D-A1
	MA3DF40	370			35		
Cathode-common type	MA3U649	200	5	0.98	30		U-G2
	MA3D649						
	MA3D650		10		50		TO-220D-A1
	MA3D652		20				

*: 2-pin Type

K

Zener Diodes



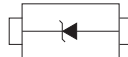
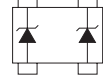



Zener Diodes Series

	General-Purpose	Low Noise			Surge Absorption		
Zener Voltage V_Z (V)	MAZ3000*	MAZ8000*	MAZS000*	MALH000YG	MAZD000	MAZQ000	MAZA000
	Mini3-G1	SMini2-F1 SMini2-F3●	SSMini2-F1 SSMini2-F4●	SMini4-F2●	SSSMini2-F2 SSSMini2-F3●	USSMini2-F1	ML2-N1
	$P_D = 200$ mW	$P_D = 150$ mW	$P_D = 150$ mW	$P_D = 150$ mW	$P_D = 120$ mW	$P_D = 100$ mW	$P_T = 100$ mW
							
1.88 to 2.24 2.08 to 2.45 2.28 to 2.70 2.50 to 2.90 2.80 to 3.20	MAZ3024 MAZ3027 MAZ3030	MAZ8024 MAZ8024G● MAZ8027 MAZ8027G● MAZ8030 MAZ8030G●	MAZS024 MAZS024G● MAZS027 MAZS027G● MAZS030 MAZS030G●	MALH024YG● MALH027YG● MALH030YG●			
3.10 to 3.50 3.40 to 3.80 3.70 to 4.10 4.00 to 4.60 4.40 to 5.00	MAZ3033 MAZ3036 MAZ3039 MAZ3043 MAZ3047	MAZ8033 MAZ8033G● MAZ8036 MAZ8036G● MAZ8039 MAZ8039G● MAZ8043 MAZ8043G● MAZ8047 MAZ8047G●	MAZS033 MAZS033G● MAZS036 MAZS036G● MAZS039 MAZS039G● MAZS043 MAZS043G● MAZS047 MAZS047G●	MALH033YG● MALH036YG● MALH039YG● MALH043YG● MALH047YG●			
4.80 to 5.40 5.30 to 6.00 5.80 to 6.60 6.40 to 7.20 7.00 to 7.90	MAZ3051 MAZ3056 MAZ3062 MAZ3068 MAZ3075	MAZ8051 MAZ8051G● MAZ8056 MAZ8056G● MAZ8062 MAZ8062G● MAZ8068 MAZ8068G● MAZ8075 MAZ8075G●	MAZS051 MAZS051G● MAZS056 MAZS056G● MAZS062 MAZS062G● MAZS068 MAZS068G● MAZS075 MAZS075G●	MALH051YG● MALH056YG● MALH062YG● MALH068YG● MALH075YG●	MAZD051 MAZD051G● MAZD056 MAZD056G● MAZD062 MAZD062G● MAZD068 MAZD068G● MAZD075 MAZD075G●	MAZQ062 MAZQ068	MAZA051 MAZA056 MAZA068
7.70 to 8.70 8.50 to 9.60 9.40 to 10.60 10.40 to 11.60 11.40 to 12.70	MAZ3082 MAZ3091 MAZ3100 MAZ3110 MAZ3120	MAZ8082 MAZ8082G● MAZ8091 MAZ8091G● MAZ8100 MAZ8100G● MAZ8110 MAZ8110G● MAZ8120 MAZ8120G●	MAZS082 MAZS082G● MAZS091 MAZS091G● MAZS100 MAZS100G● MAZS110 MAZS110G● MAZS120 MAZS120G●	MALH082YG● MALH091YG● MALH100YG● MALH110YG● MALH120YG●	MAZD082 MAZD082G● MAZD091 MAZD091G● MAZD100 MAZD100G● MAZD110 MAZD110G● MAZD120 MAZD120G●	MAZQ100	MAZA082
12.40 to 14.10 13.65 to 14.35 13.90 to 15.60 15.30 to 17.10 16.90 to 19.10	MAZ3130 MAZ3140 MAZ3150 MAZ3160 MAZ3180	MAZ8130 MAZ8130G● MAZ8140 MAZ8140G● MAZ8150 MAZ8150G● MAZ8160 MAZ8160G● MAZ8180 MAZ8180G●	MAZS130 MAZS130G● MAZS150 MAZS150G● MAZS160 MAZS160G● MAZS180 MAZS180G●	MALH130YG● MALH150YG● MALH160YG● MALH180YG●	MAZD160 MAZD160G● MAZD180 MAZD180G●		

✕: Rank compatible ●: Recommended products (Global package products)

Zener Diodes

Zener Diodes Series (continued)

	General-Purpose	Low Noise			Surge Absorption		
Zener Voltage V_Z (V)	MAZ3000*	MAZ8000*	MAZS000*	MALH000YG	MAZD000	MAZQ000	MAZA000
	Mini3-G1	SMini2-F1 SMini2-F3●	SSMini2-F1 SSMini2-F4●	SMini4-F2●	SSSMini2-F2 SSSMini2-F3●	USSMini2-F1	ML2-N1
	$P_D = 200$ mW	$P_D = 150$ mW	$P_D = 150$ mW	$P_D = 150$ mW	$P_D = 120$ mW	$P_D = 100$ mW	$P_T = 100$ mW
							
18.80 to 21.20	MAZ3200	MAZ8200 MAZ8200G●	MAZS200 MAZS200G●	MALH200YG●	MAZD200 MAZD200G●	MAZQ200	
20.80 to 23.30	MAZ3220	MAZ8220 MAZ8220G●	MAZS220 MAZS220G●	MALH220YG●	MAZD220 MAZD220G●		
22.50 to 25.60	MAZ3240	MAZ8240 MAZ8240G●	MAZS240 MAZS240G●	MALH240YG●	MAZD240 MAZD240G●		
25.10 to 28.90	MAZ3270	MAZ8270 MAZ8270G●	MAZS270 MAZS270G●	MALH270YG●	MAZD270 MAZD270G●		
28.00 to 32.00	MAZ3300	MAZ8300 MAZ8300G●	MAZS300 MAZS300G●	MALH300YG●	MAZD300 MAZD300G●	MAZQ300	
31.00 to 35.00	MAZ3330	MAZ8330 MAZ8330G●	MAZS330 MAZS330G●	MALH330YG●			
34.00 to 38.00	MAZ3360	MAZ8360 MAZ8360G●	MAZS360 MAZS360G●	MALH360YG●	MAZD360 MAZD360G●		
37.00 to 41.00		MAZ8390 MAZ8390G●	MAZS390 MAZS390G●	MALH390YG●			

✕: Rank compatible ●: Recommended products (Global package products)

Zener Diodes




Zener Diodes Series (continued)

Zener Voltage V_Z (V)	Surge Absorption						
	MAZ9000H	MAZL000H	MAZZ000H	MAZT000H	MAZM000H	MAZW000H	MAZP000H
	Mini3-G1	Mini5-G1	SMini5-F1	SSMini3-F2 SSMini3-F3●	SSMini5-F3●	SSSMini3-F1 SSSMini3-F2●	ML3-N2
	$P_D = 200$ mW	$P_D = 200$ mW	$P_D = 200$ mW	$P_D = 150$ mW	$P_D = 150$ mW	$P_D = 150$ mW	$P_T = 200$ mW
5.80 to 6.60	MAZ9062H		MAZZ062H	MAZT062H MAZT062HG●	MAZM062HG●	MAZW062HG●	
6.40 to 7.20	MAZ9068H	MAZL068H	MAZZ068H	MAZT068H MAZT068HG●	MAZM068HG●	MAZW068H MAZW068HG●	MAZP068H
7.00 to 7.90							
7.70 to 8.70		MAZL082H	MAZZ082H	MAZT082H MAZT082HG●	MAZM082HG●	MAZW082H MAZW082HG●	MAZP082H
8.50 to 9.60							
9.40 to 10.60			MAZZ100H	MAZT100HG●	MAZM100HG●	MAZW100HG●	
10.40 to 11.60							
11.40 to 12.70	MAZ9120H	MAZL120H	MAZZ120H	MAZT120HG●	MAZM120HG●	MAZW120HG●	

● : Recommended products (Global package products)


Zener Diodes

Low C_t Series

Zener Voltage V_Z (V)	Part No.	C_t (pF)	Equivalent Circuit	Package
5.9 to 6.5	MAZC062D	8		Mini3-G1
	MAZE062D MAZE062DG●			SMini3-F1 SMini3-F2●
	MAYK062D			Mini5-G1


● : Recommended products (Global package products)

Surge Protective Diode

Breakdown Voltage V_{BR} (V)	Part No.	C_t (pF)	ESD (kV)	Equivalent Circuit	Package
7.5	MAYS0750Z MAYS075GZ●	1.5	±12		SSMini2-F1 SSMini2-F4●
	MAYS0750Y MAYS075GY●	0.8	±8		




● : Recommended products (Global package products)

Bidirectional Zener Diode

Zener Voltage V_Z (V)	Part No.	C_t (pF)	ESD (kV)	Equivalent Circuit	Package
6.5 to 7.5	MALS068X MALS068XG●	15	±15		SSMini2-F1 SSMini2-F4●
	MALD068X MALD068XG●	25			SSSMini2-F1 SSSMini2-F3●
14.5 to 17.5	MALS160X MALS160XG●	3.0			SSMini2-F1 SSMini2-F4●
17.5 to 20.0	MALS180X MALS180XG●	4			SSMini2-F1 SSMini2-F4●


● : Recommended products (Global package products)

High ESD (30 kV) Protection Device

Breakdown Voltage V_{BR} (V)	Part No.	ESD (kV)	Equivalent Circuit	Package
5.8 to 6.6	MALS062 MALS062G●	±30		SSMini2-F1 SSMini2-F4●
6.4 to 7.2	MALS068 MALS068G●			
5.8 to 6.6	MALT062H MALT062HG●			SSMini3-F2 SSMini3-F3●
	MALM062HG●		SSMini5-F3●	

● : Recommended products (Global package products)

High Surge Absorption Diode

Breakdown Voltage V_{BR} (V)	Part No.	I_{PP}	ESD (kV)	Equivalent Circuit	Package
20 to 30	MANV250GE	9	30		SMini2-F3

Voltage Detector / Fuses (Circuit Protector Elements)

* Electrical fuses, etc. specified by laws are not applicable.

Voltage Detector.....L2
Reset IC.....L2
IC LinksL2
Circuit Protector Elements.....L2



Voltage Detector

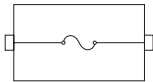
Reset IC

Part No.	Detection voltage (V)	Detection voltage rank		Detection hysteresis (V)	Output type	Package
		2.0 to 2.5 (V)	2.6 to 4.6 (V)			
MN1382S	2.0 to 4.9	7	10	0.05 to 0.3 *1	CMOS output	MINI-3DC
MN13821S		0.1 V steps	0.2 V steps		N-ch open drain	
MN13822S					CMOS inverted output	

*1: 0.1 to 0.3 in some regions

IC Links

Circuit Protector Elements

Part No.	Rated Current (A)	Shut-off Current (typ.) (A) ± 20%	Internal Resistance (typ.) (mΩ)	Rated Voltage (V)	Operating Ambient Temperature (°C)	Storage Temperature (°C)	Package	Equivalent Circuit
UNHZ201	0.7	1.4	93	50	-55 to +125	-55 to +125	SMini2-F1	
UNHZ202	1.0	2.0	59					
UNHZ203	1.2	2.4	46					
UNHZ204	1.5	3.0	35					

(Cautions)

- Applying continuously a current exceeding the rated current causes heating of the package and can be dangerous.
- Please use these elements to circuits in the secondary side only.
- Since these elements do not correspond to current fuses, etc., according to legal regulations, avoid using symbols for these elements in circuit diagrams, that may cause confusion with tubular fuses, etc.

Package Information

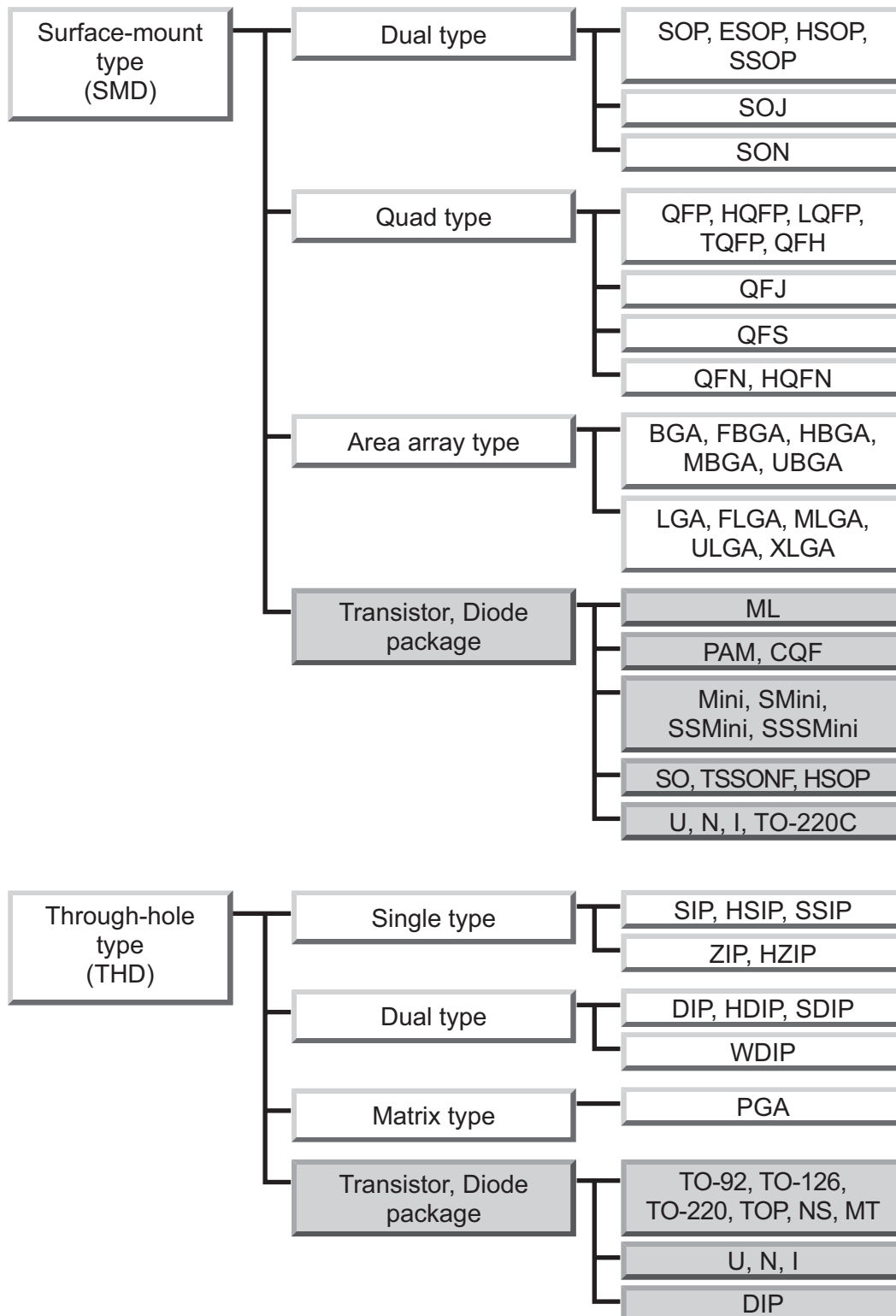
Package Explanation.....	M2
Package classification	M2
Part Number Structure / Shipment and Packaging	M4
Part Number Structure.....	M4
Packaging forms	M5
Discrete Devices.....	M6
Embossed taping	M6
Precautions when Using Semiconductor Products	M8



Package Explanation

Package classification

Packages are classified as shown below according to the package shape and the method for mounting the package on the printed-circuit board.



Part Number Structure / Shipment and Packaging



Part Number Structure / Shipment and Packaging

Part Number Structure

[Transistors]

Ex.) 2 S **B** **1** **2** **1** **8** **G** **R** **L**
 (1) (2) (3) (4) (5)

- (1) Type
- (2) JEITA registration number
- (3) Withstand voltage/Specification
- (4) Rank
- (5) Packaging style

Packaging style

[Stand-alone product]

A: Radial tape

[SO8 type product]

B: Embossed tape (Upper left of pin 1)

F: Embossed tape (Lower right of pin 1)

[Surface mounting product]

B: Embossed tape (Thermocompression product)*1

P: Embossed tape (Reset IC)

L: Embossed tape*2

*1: Only package partially

*2: Global package products undergo thermocompression.

[Diodes]

Ex.) M A **2** **J** **1** **1** **1** **0** **G** **L**
 (1) (2) (3) (4) (5) (6) (7)

- (1) Terminal count (when character is a number)
- (2) Package type
- (3) Type
 - X: Mini Type
 - F/2: Flat Mini Typ
 - J/Z/1: S Mini Type
 - S: SS Mini Type
 - Q: NMP Type
- (4) Number
- (5) Specification
- (6) Rank/Specification
- (7) Packaging style
 - 4: TMP Type
 - 6: 1006 Type
 - 7: SSS Mini Type
 - D/E/F: TO-220

Specification

[Global package specification]

G indication on the 8th digit from the left
 However, switching diodes, schottky barrier diodes is indicated on the 9th digit. Existing package except for G.

[Composite Transistors(XN, XP, UP, NP)]

Ex.) U P **0** **4** **6** **0** **1** **G** **0** **L**
 (1) (2) (3) (4) (5)

- (1) Package type
 - (2) Type
 - (3) Polarity
 - (4) Specification
 - (5) Packaging style
- XN: Mini Type
 - XP: S Mini Type
 - UP: SS Mini Type
 - NP: SSS Mini Type

[Transistor with built-in resistors]

Ex.) U N **R** **5** **1** **1** **1** **G** **0** **L**
 (1) (2) (3) (4) (5) (6)

- (1) Package type
 - (2) Polarity
 - (3) Number
 - (4) Specification
 - (5) Rank
 - (6) Packaging style
- 2: Mini Type
 - 5: S Mini Type
 - 9: SS Mini Type
 - 3: SSS Mini Type

[MOS-FET]

Ex.) 2 S **K** **1** **3** **7** **4** **G** **0** **L**
 (1) (2) (3) (4) (5)

- (1) Polarity
- (2) JEITA registration number
- (3) Withstand voltage/Specification
- (4) Rank
- (5) Packaging style

Ex.) M T M **2** **3** **2** **2** **3** **0** **L**
 (1) (2) (3) (4) (5)

- (1) Package type
 - (2) Terminal count
 - (3) Number
 - (4) Rank
 - (5) Packaging style
- 0: Mini Power Type
 - 1: Mini Type
 - 2: S Mini Type
 - 4: SSS Mini Type
 - 6/C: W Mini Type
 - 7/D: WS Mini Type
 - 8/E: WSS Mini Type
 - 9/F: SO Type

[SiGe HBT]

Ex.) M S G **3** **3** **0** **0** **1** **0** **L**
 (1) (2) (3) (4) (5)

- (1) Package type
 - (2) Terminal count
 - (3) Number
 - (4) Rank
 - (5) Packaging style
- 0: Mini Type
 - 1: S Mini Type
 - 2: SS Mini Type
 - 3: SSS Mini Type
 - 4: 1006 Type
 - 5: 1009 Type

[Reset IC]

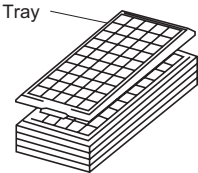
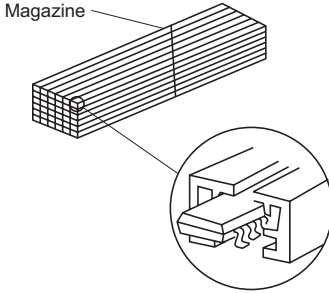
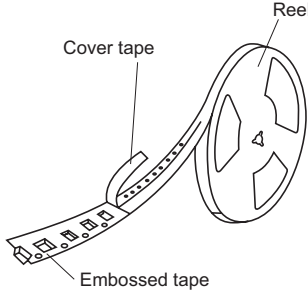
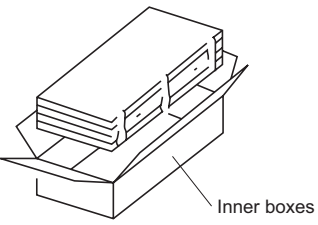
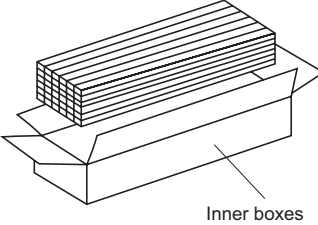
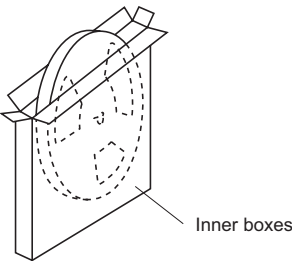
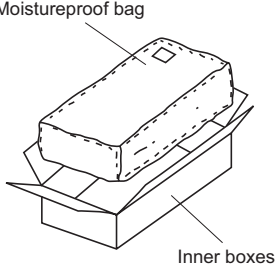
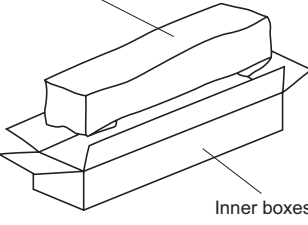
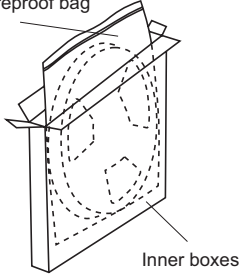
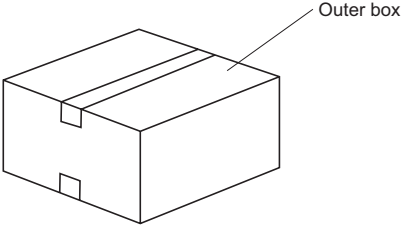
Ex.) M N 1 **3** **8** **2** **1** **S** **Q** **P**
 (1) (2) (3) (4)

- (1) Package type
 - (2) Output style
 - (3) Rank
 - (4) Packaging style
- 1: TO-92 Type
 - 2: Mini Type
 - 3: MT-2 Type
 - 1: CMOS output
 - 2: N-ch open drain
 - 3: CMOS inverted output

Part Number Structure / Shipment and Packaging

Packaging forms

The storage cases and packaging used for our company's semiconductor devices use materials and structures which are able to withstand the worst environmental stress during storage and shipment to maintain the initial product quality and reliability. Because of this, sufficient consideration should be given when products are taken out of our company's specified packaging and transferred to other packaging for storage or shipment.

		Tray appearance	Magazine appearance	Embossed tape appearance
Storage cases				
Inner boxes	Normal packaging			
	Moistureproof packaging			
Outer box				

As part of our company's efforts toward reducing waste, we are working on cartonless (no inner boxes) packaging.



Part Number Structure / Shipment and Packaging

Discrete Devices

Embossed taping

Package code	Terminal count	Tape pitch (mm)	Tape width (mm)	Maximum quantity of storage/tray	
I-G1	3	12	24	1 000	
N-G1					
TO-220C-G1					
TMiniP2-F1	2	4	12	3 000	
Mini2-F1					
SMini2-F1					
SMini2-F2					
SMini2-F3		2, 4	8	8 000, 3 000	
SMini2-F1					
SMini2-F2		2		10 000	
SMini2-F3					
USSMini2-F1					
ML2-N1					
MiniP3-F2		3	8	12	1 000
Mini3-G1			4		3 000
MINI-3DC					
SMini3-F1					
SMini3-F2					
SMini3-G1					
SMini3-F1					
SMini3-F2	2			10 000	
SMini3-F3					
SMini3-F1					
SMini3-F2					
TSSMini3-F1	4			3 000	
ML3-N2					
Mini4-G1					
SMini4-F1					
SMini4-F2					
SMini4-F1					
Mini5-G1	5	2	8 000		
SMini5-F1					
SMini5-G1		2, 4	8 000, 3 000		
SMini5-F2					
SMini5-F3	6	4	3 000		
Mini6-G1					
Mini6-G2					
WSMini6-F1					
SMini6-F1		2		10 000	
SMini6-G1					
WSSMini6-F1					
SMini6-F1					
SMini6-F2					
SMini6-F1					
SMini6-F1	2		8 000		
SMini6-F2					
SMini6-F1	10 000		10 000		
SMini6-F1					
ML6-N6	8	8	12	3 000	
SO8-F1		4	8		
WMini8-F1					

Precautions when Using Semiconductor Products

Precautions when Using Semiconductor Products

Please avoid impacts such as drops to the floor when the product is handled

The radical material might crack and be lacked.

Further, be careful that strong mechanical stress is not applied to the package. For thin packages, since the mold is thin, if strong stress is applied the package or elements may be damaged.

In addition, since electrostatic discharge damage, deterioration of solderability, corrosion between electrode wiring, etc. may occur if products are touched with bare hands, be sure to be sufficiently careful when handling products.

Read the following items and handle the products with caution.

Static electricity may cause incidence of break down, dysfunction, or malfunction to the product.

Rough handling such as scratching, cracking, or breaking the product may lead to dysfunction and malfunction.

Handling the product with your bare hands or saliva or perspiration from human body may result malfunction of the outer electrodes and wires.

Environments containing high humidity, dust, or harmful gases (hydrogen chloride, sulfurous acid gas, or hydrogen sulfide) may cause deterioration of the soldering characteristics of the external electrodes.

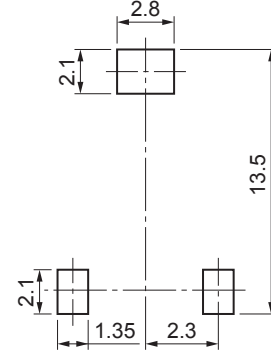
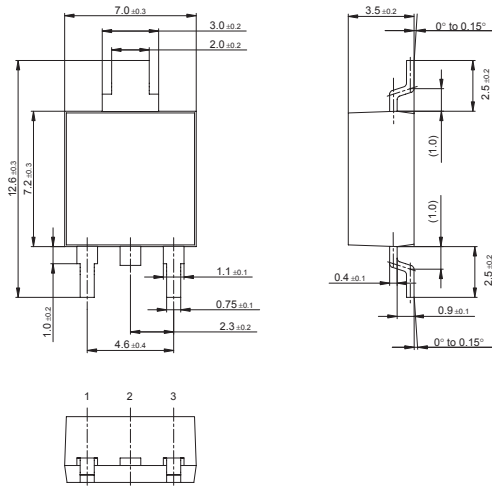
Package Outlines/Reference Dimension of Soldering pad

<Package	Page>	<Package	Page>
Surface mounting type (Power)		Stand-alone type	
I-G1	N3	NS-A1 (JEITA: SC-72)	N21
N-G1	N3	NS-B1	N21
U-G2 (JEITA: SC-63, JEDEC: TO-252)	N3	TO-92-B1	N21
TO-220C-G1 (JEITA: SC-83)	N4	TO-92L-A1 (JEITA:SC-51)	N21
Surface mounting type (Small signal)		TO-92NL-A1	N21
TMiniP2-F1	N5	MT-1-A1	N21
Mini2-F1	N5	MT-2-A1	N22
SMini2-F1 (JEITA: SC-90A)	N5	MT-3-A1	N22
SMini2-F2	N6	MT-4-A1	N22
SMini2-F3 (JEITA: SC-90)	N6	TO-126B-A1	N22
SSMini2-F1 (JEITA: SC-79)	N6	I-A1	N22
SSMini2-F2 (JEITA: SC-80)	N7	N-A1	N22
SSMini2-F4 (JEITA: SC-80)	N7	TO-220D-A1 (JEITA: SC-91)	N23
SSSMini2-F1 (JEITA: SC-104A)	N7	TO-220D-B1	N23
SSSMini2-F2 (JEITA: SC-104A)	N8	TO-220F-A1 (JEITA: SC-67, JEDEC: TO-220AB)	N23
SSSMini2-F3 (JEITA: SC-104A)	N8		
USSMini2-F1	N8		
ML2-N1	N9		
MiniP3-F2 (JEITA: SC-62, JEDEC: TO-243)	N9		
Mini3-G1, MINI-3DC (JEITA: SC-59A, JEDEC: TO-236AA)	N9		
SMini3-F1 (JEITA: SC-85)	N10		
SMini3-F2 (JEITA: SC-85)	N10		
SMini3-G1 (JEITA: SC-70)	N10		
SSMini3-F1 (JEITA: SC-89)	N11		
SSMini3-F2 (JEITA: SC-81)	N11		
SSMini3-F3 (JEITA: SC-89)	N11		
SSSMini3-F1 (JEITA: SC-150AA)	N12		
SSSMini3-F2 (JEITA: SC-150AA)	N12		
TSSSMini3-F1	N12		
ML3-N2	N13		
Mini4-G1	N13		
SMini4-F1	N13		
SMini4-F2	N14		
SSMini4-F1 (JEITA: SC-107A)	N14		
Mini5-G1 (JEITA: SC-74A, JEDEC: MO-178-AA)	N14		
SMini5-F1	N15		
SMini5-G1 (JEITA: SC-88A)	N15		
SSMini5-F1 (JEITA: SC-107BB)	N15		
SSMini5-F2 (JEITA: SC-107BB)	N16		
SSMini5-F3 (JEITA: SC-107BB)	N16		
Mini6-G1	N16		
Mini6-G2 (JEITA: SC-74, JEDEC: MO-178-AB)	N17		
WSMini6-F1	N17		
SMini6-F1	N17		
SMini6-G1 (JEITA: SC-88)	N18		
WSSMini6-F1	N18		
SSMini6-F1 (JEITA: SC-107C)	N18		
SSMini6-F2 (JEITA: SC-107C)	N19		
SSSMini6-F1	N19		
ML6-N6	N19		
SO8-F1	N20		
WMini8-F1	N20		

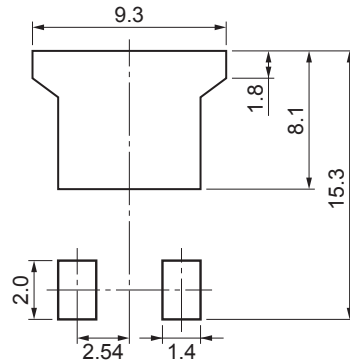
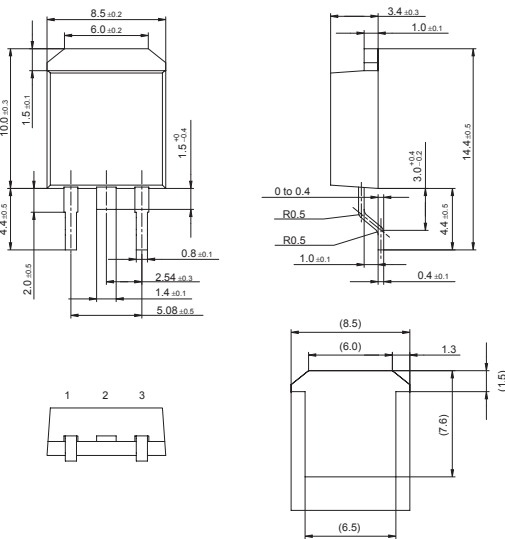
Surface mounting type (Power) Package Outlines/Reference Dimension of Soldering pad

() : Reference Value Unit: mm

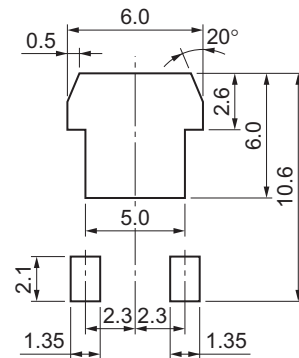
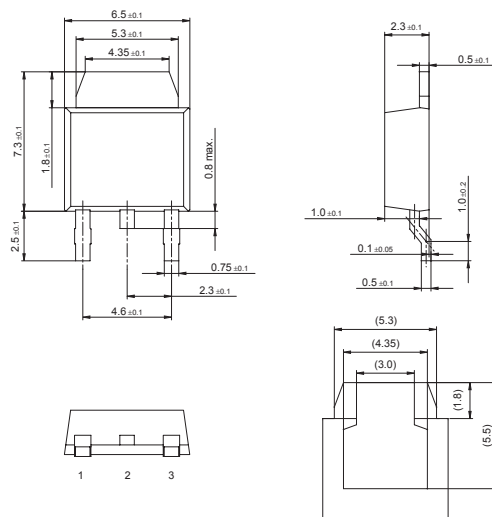
I-G1



N-G1



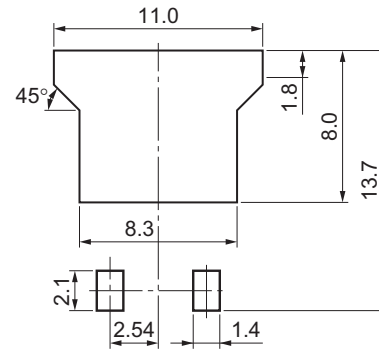
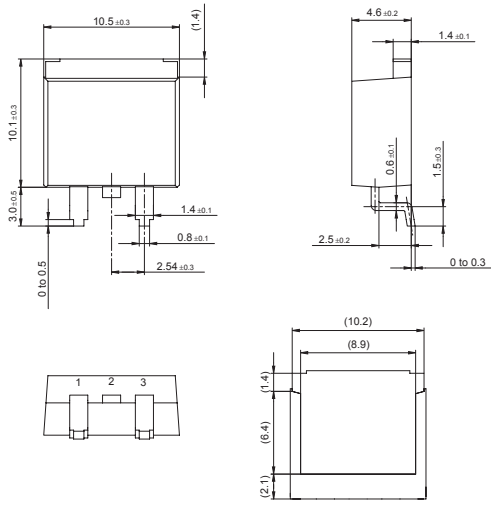
U-G2 (JEITA: SC-63, JEDEC: TO-252)



Surface mounting type (Power) Package Outlines/Reference Dimension of Soldering pad

() : Reference Value Unit: mm

TO-220C-G1 (JEITA: SC-83)



Surface mounting type (Small signal) Package Outlines/Reference Dimension of Soldering pad

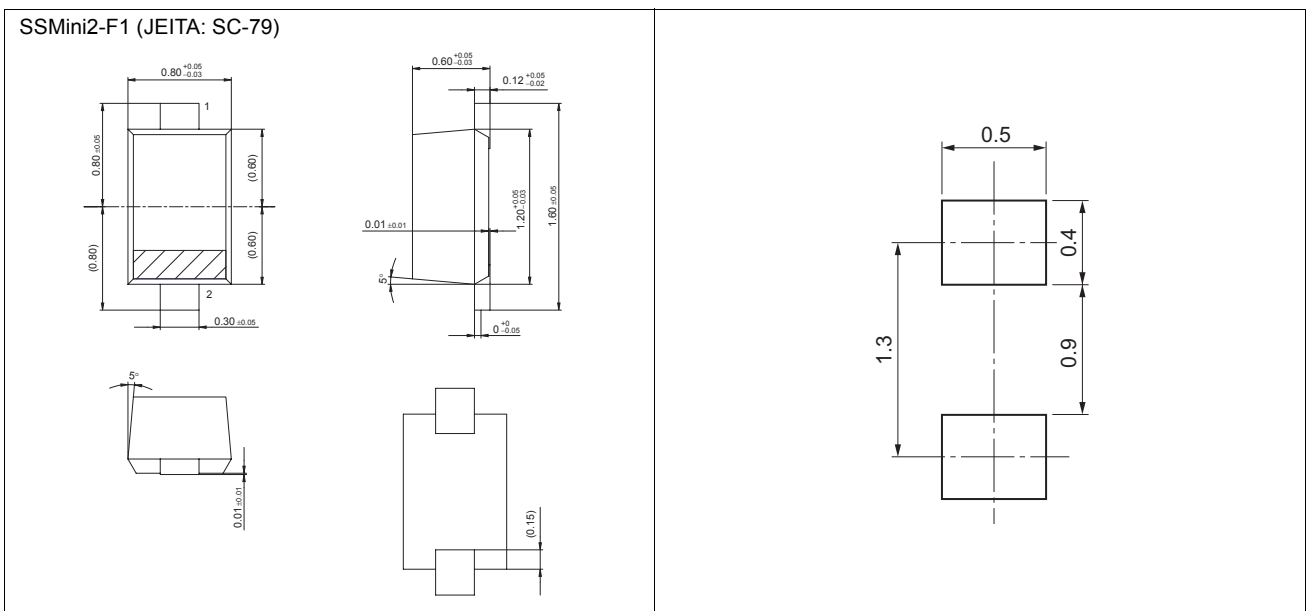
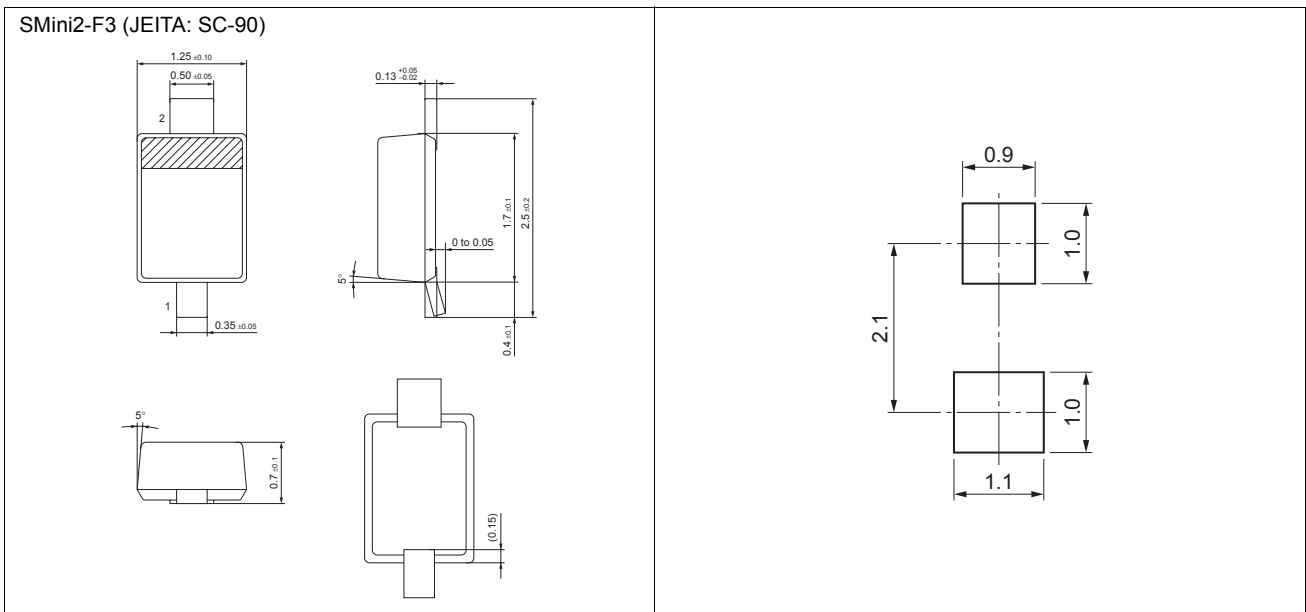
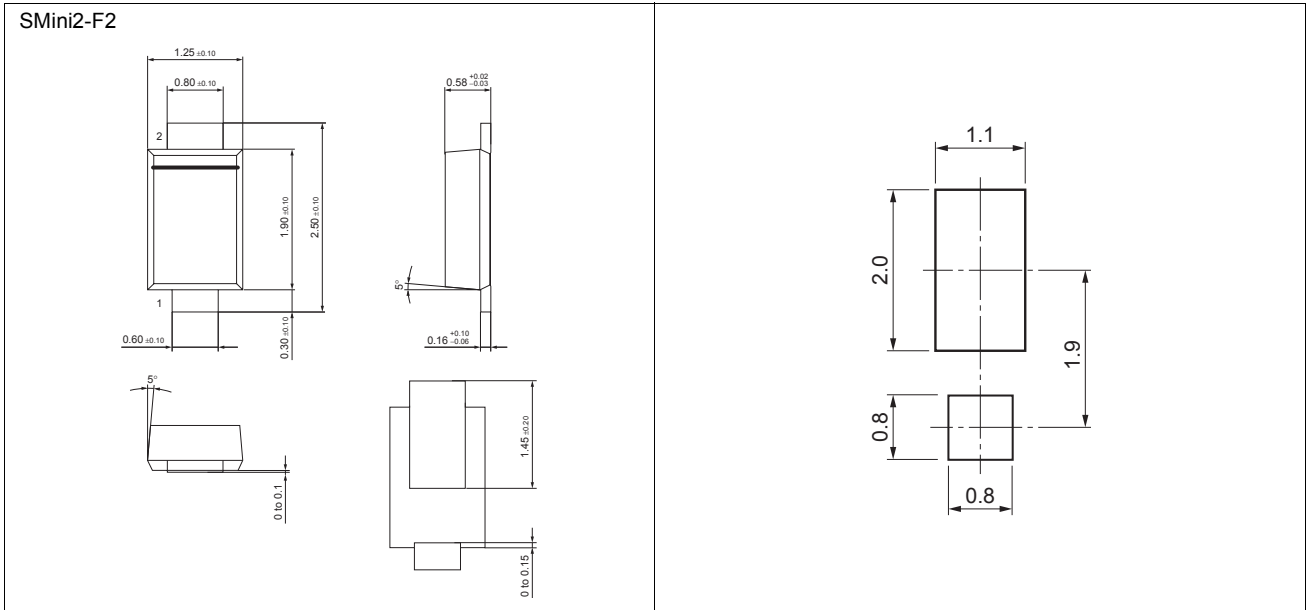
() : Reference Value Unit: mm

<p>TMiniP2-F1</p>	
<p>Mini2-F1</p>	
<p>SMini2-F1 (JEITA: SC-90A)</p>	

N

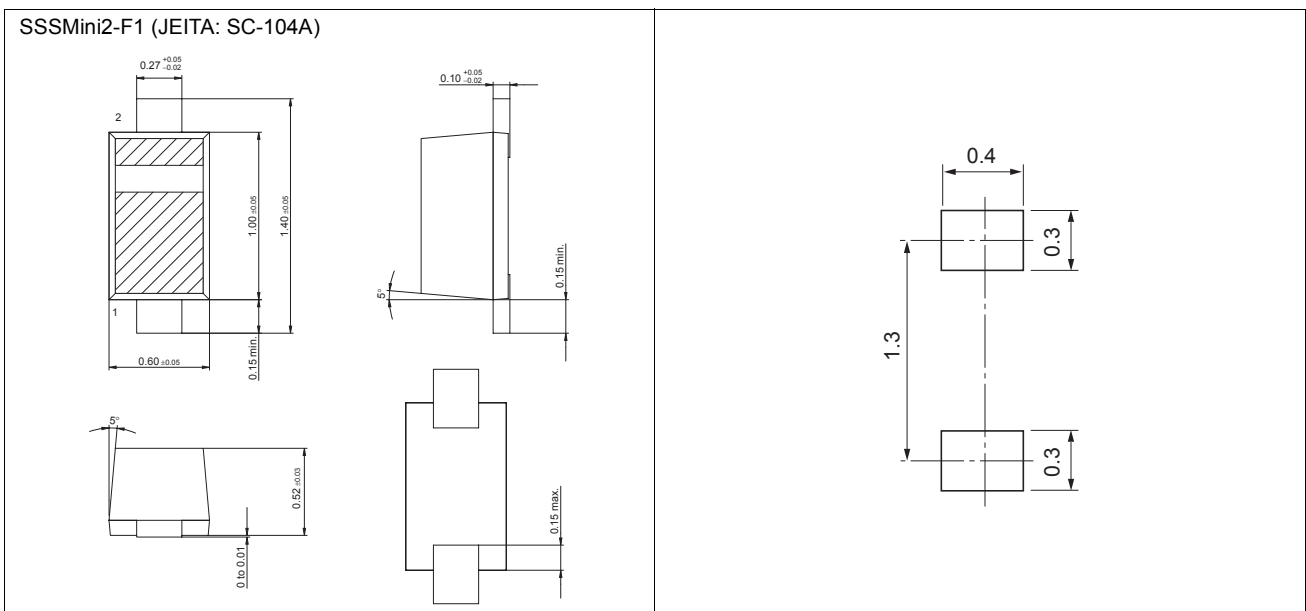
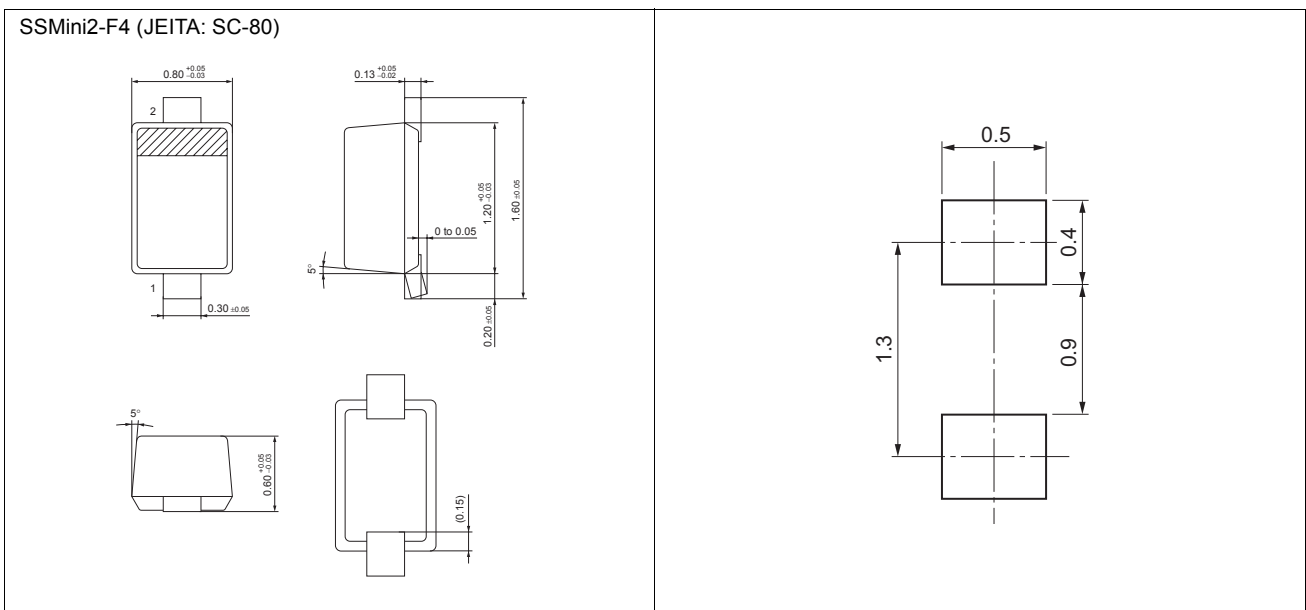
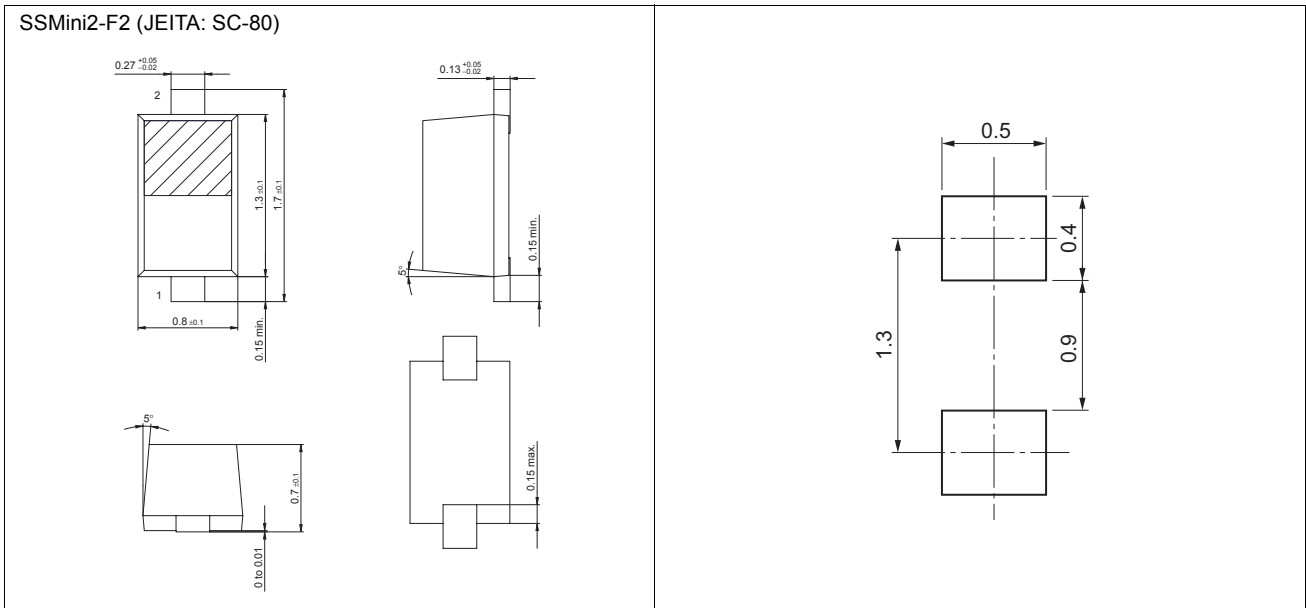
Surface mounting type (Small signal) Package Outlines/Reference Dimension of Soldering pad

() : Reference Value Unit: mm



Surface mounting type (Small signal) Package Outlines/Reference Dimension of Soldering pad

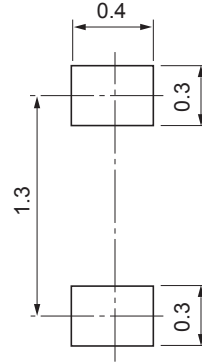
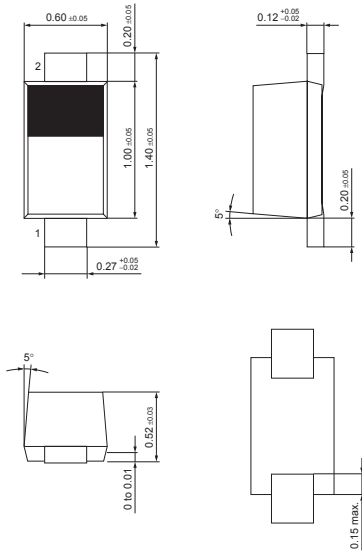
() : Reference Value Unit: mm



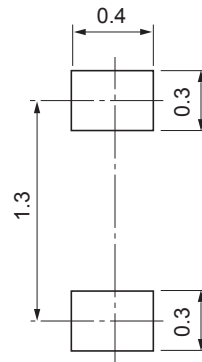
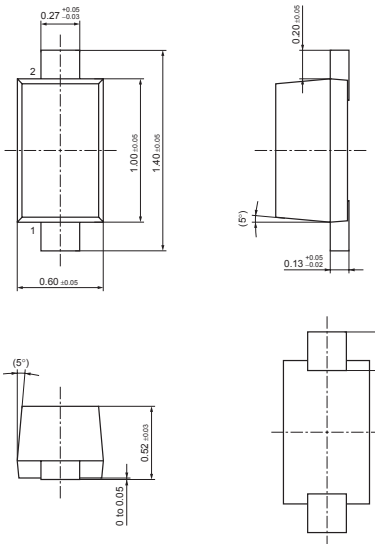
Surface mounting type (Small signal) Package Outlines/Reference Dimension of Soldering pad

() : Reference Value Unit: mm

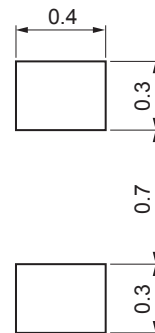
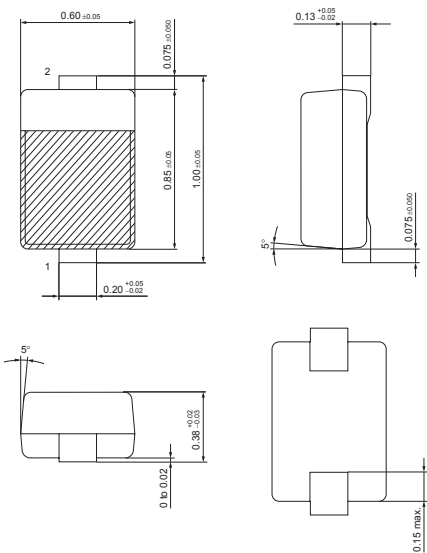
SSSMini2-F2 (JEITA: SC-104A)



SSSMini2-F3 (JEITA: SC-104A)

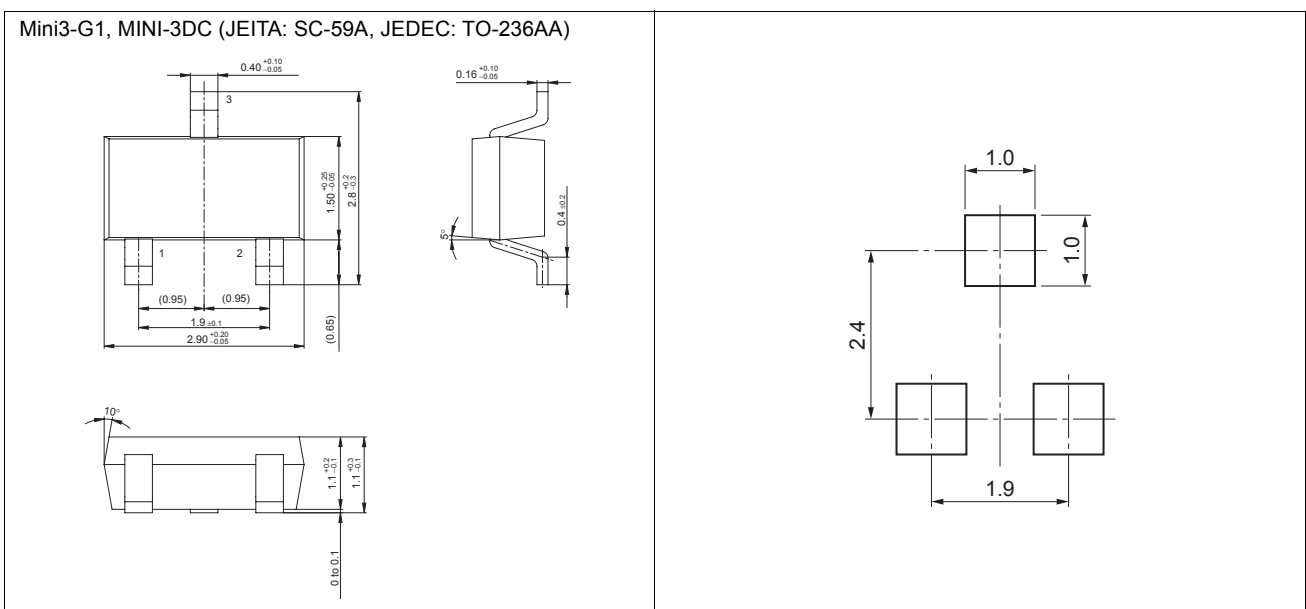
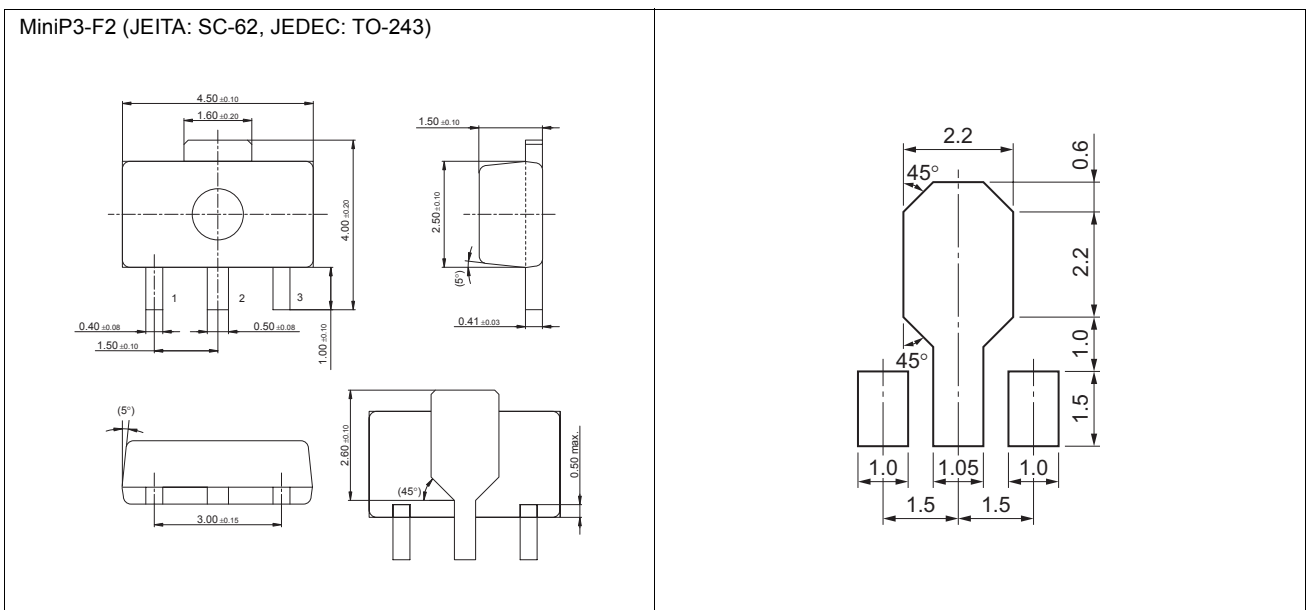
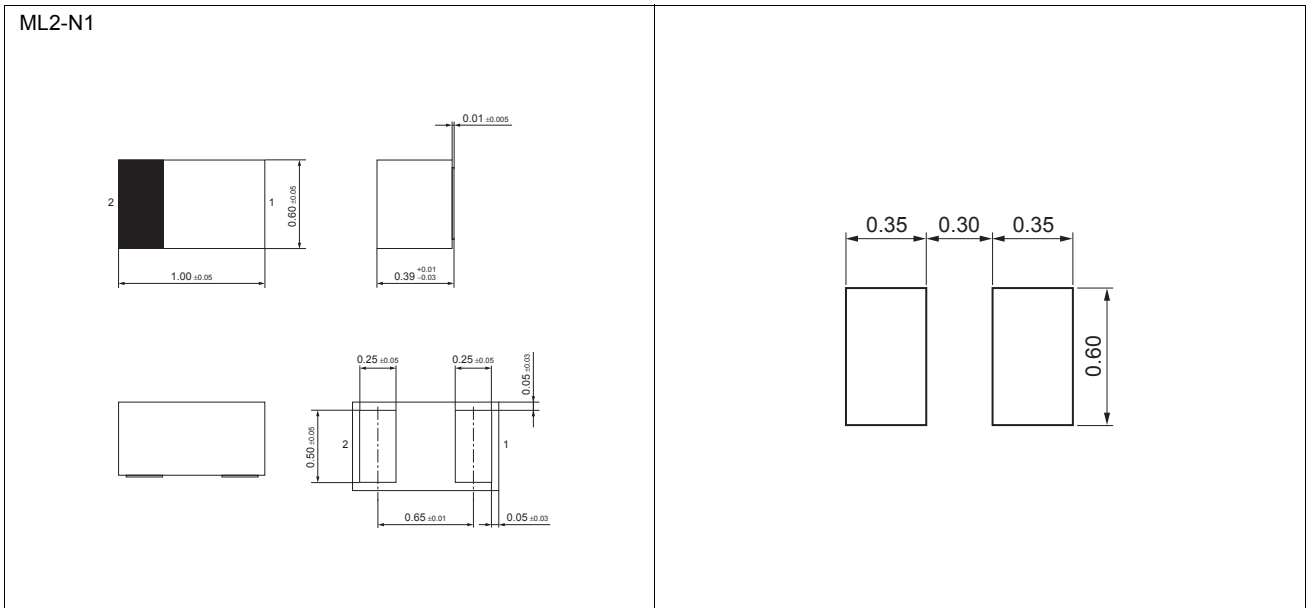


USSMini2-F1



Surface mounting type (Small signal) Package Outlines/Reference Dimension of Soldering pad

() : Reference Value Unit: mm

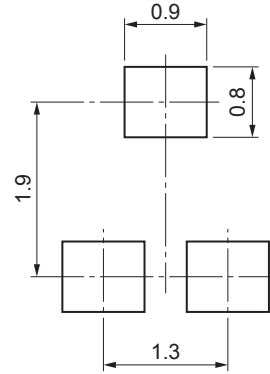
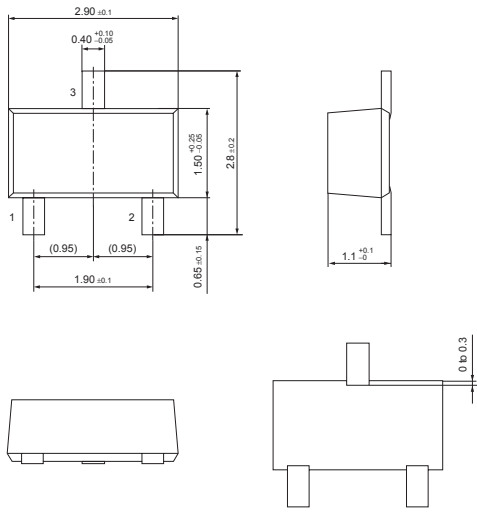


N

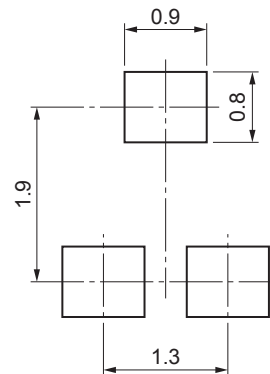
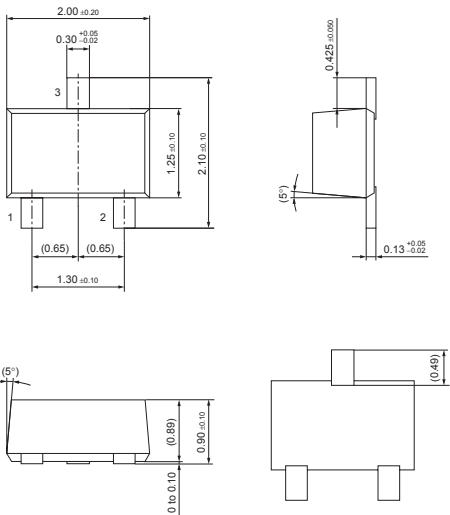
Surface mounting type (Small signal) Package Outlines/Reference Dimension of Soldering pad

() : Reference Value Unit: mm

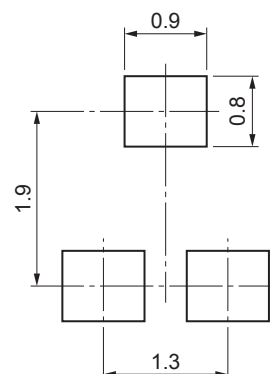
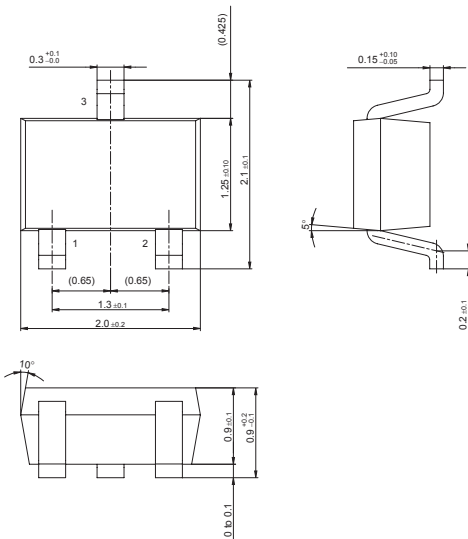
SMini3-F1 (JEITA: SC-85)



SMini3-F2 (JEITA: SC-85)



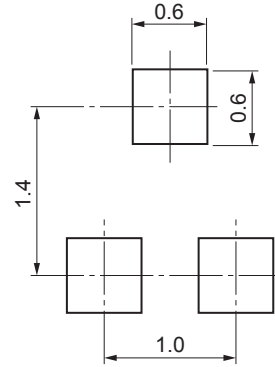
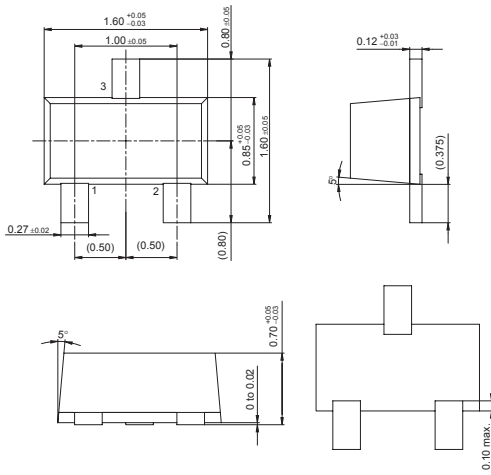
SMini3-G1 (JEITA: SC-70)



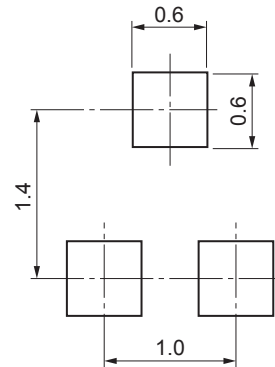
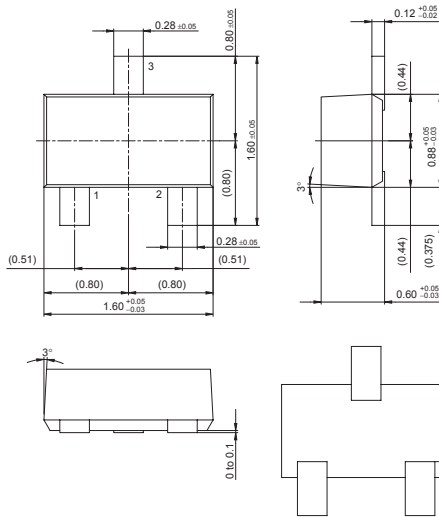
Surface mounting type (Small signal) Package Outlines/Reference Dimension of Soldering pad

() : Reference Value Unit: mm

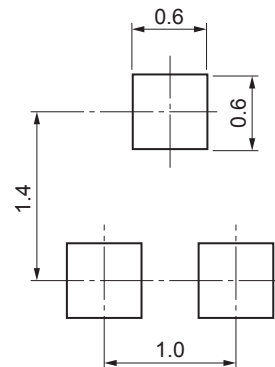
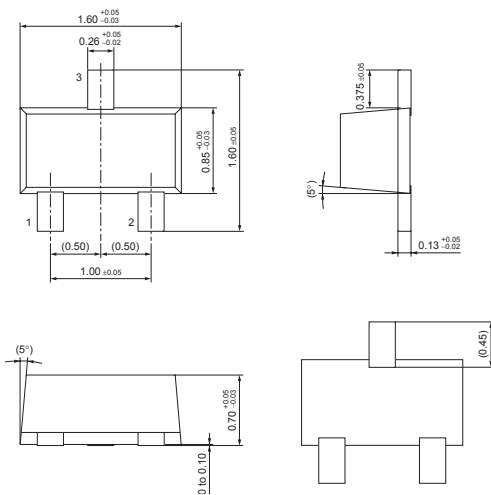
SSMini3-F1 (JEITA: SC-89)



SSMini3-F2 (JEITA: SC-81)



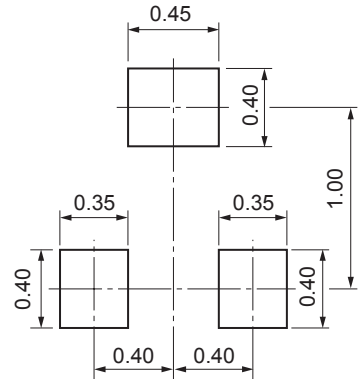
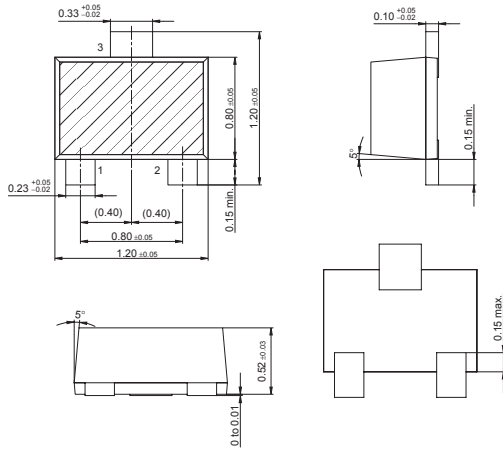
SSMini3-F3 (JEITA: SC-89)



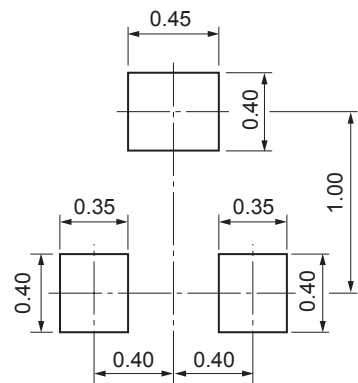
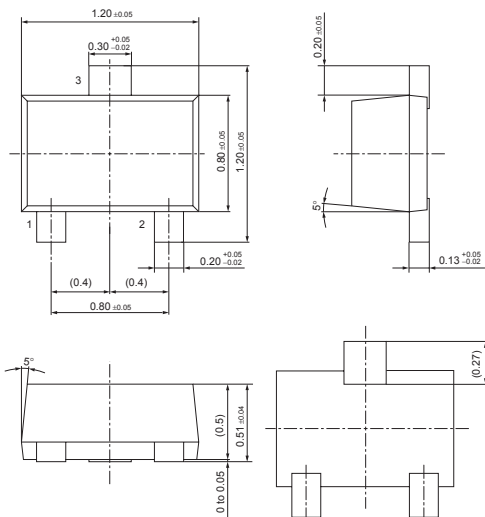
Surface mounting type (Small signal) Package Outlines/Reference Dimension of Soldering pad

() : Reference Value Unit: mm

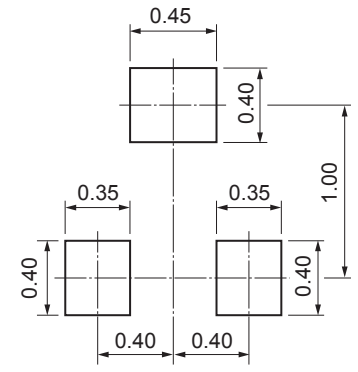
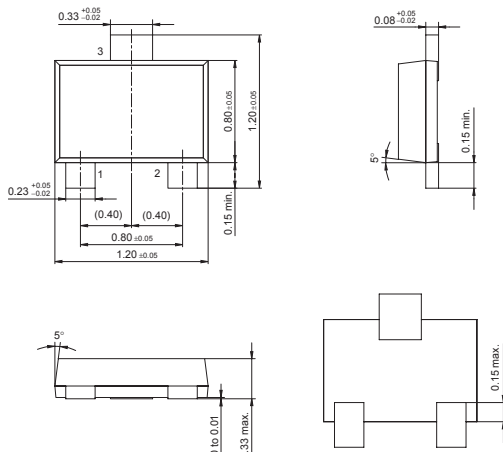
SSSMini3-F1 (JEITA: SC-150AA)



SSSMini3-F2 (JEITA: SC-150AA)



TSSSMini3-F1



Surface mounting type (Small signal) Package Outlines/Reference Dimension of Soldering pad

() : Reference Value Unit: mm

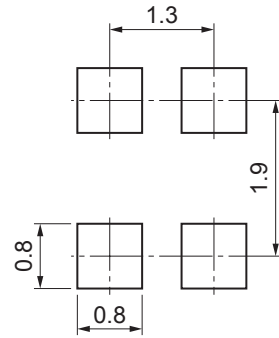
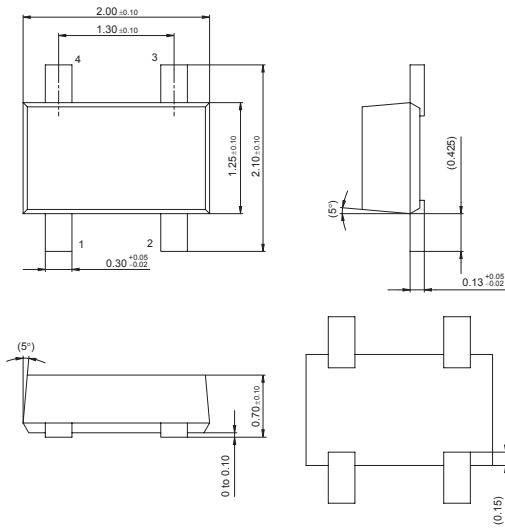
<p>ML3-N2</p>	
<p>Mini4-G1</p>	
<p>SMini4-F1</p>	

N

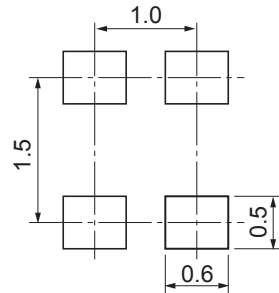
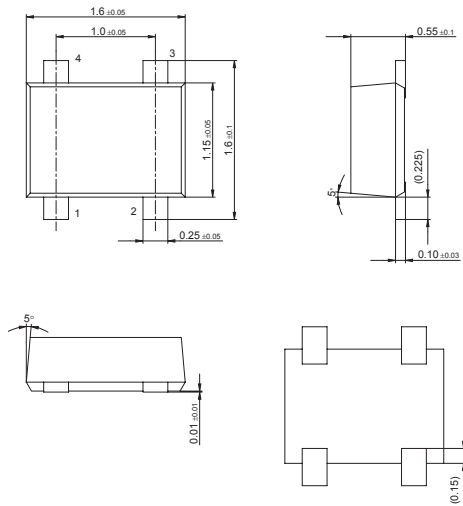
Surface mounting type (Small signal) Package Outlines/Reference Dimension of Soldering pad

() : Reference Value Unit: mm

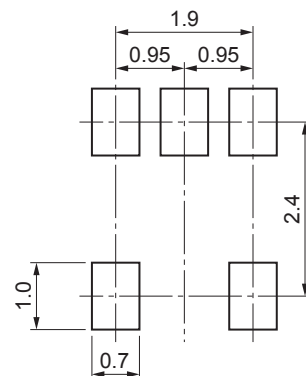
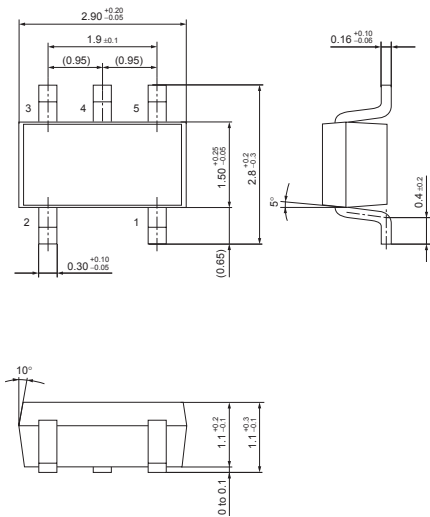
SMini4-F2



SMini4-F1 (JEITA: SC-107A)

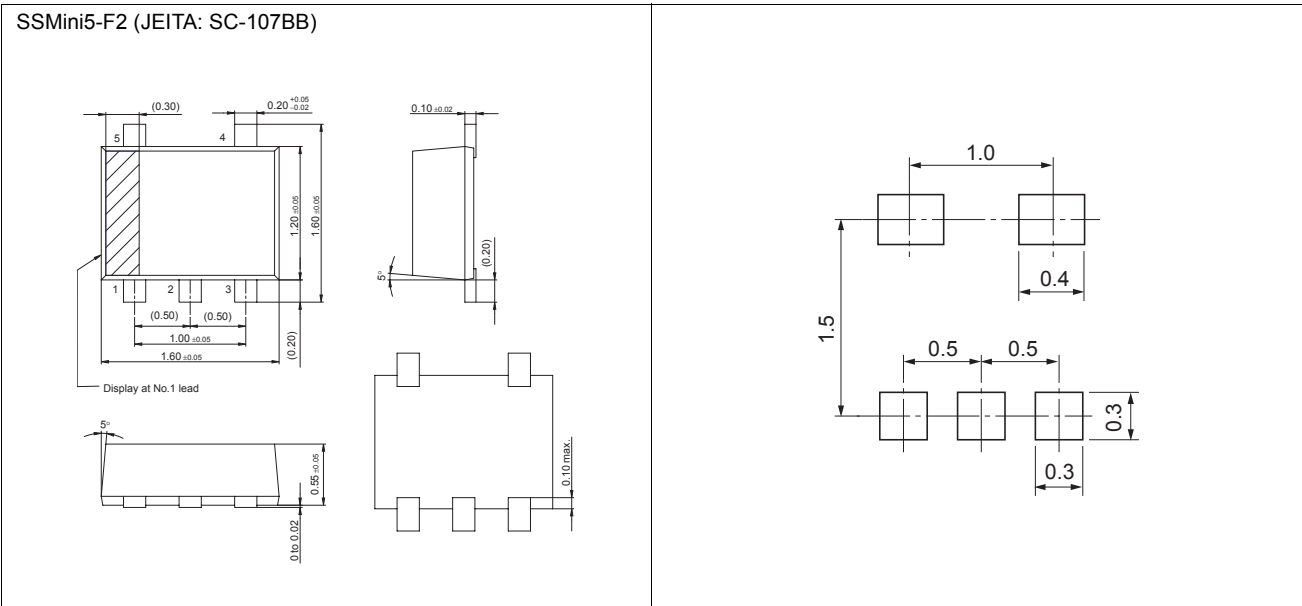
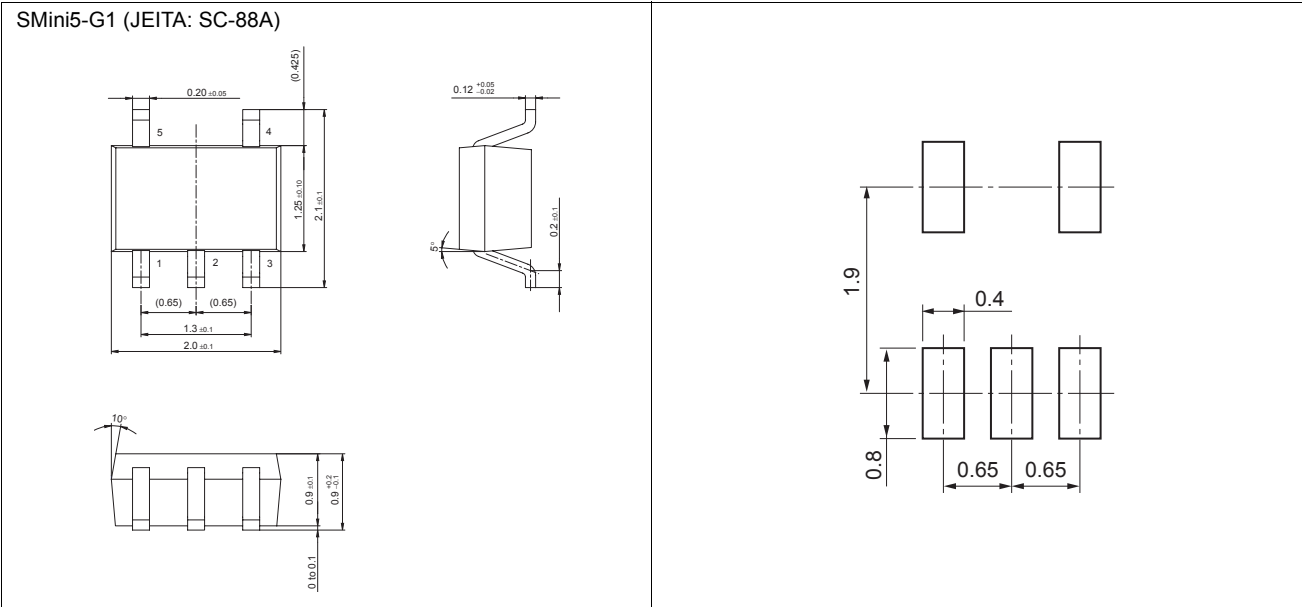
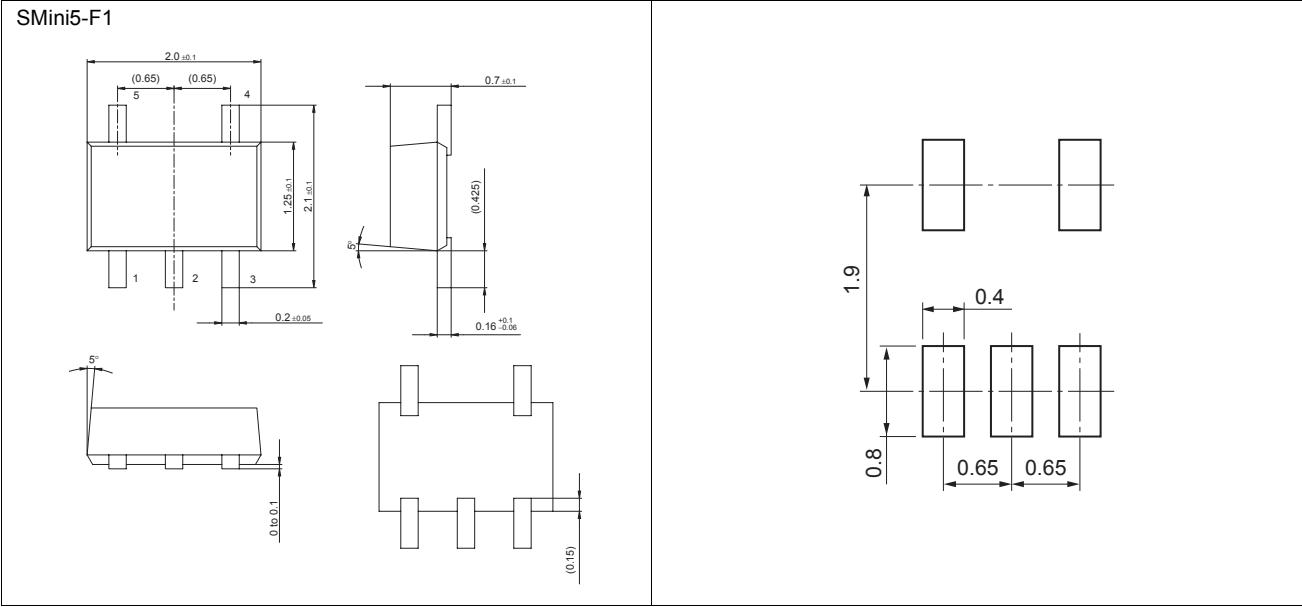


Mini5-G1 (JEITA: SC-74A, JEDEC: MO-178-AA)



Surface mounting type (Small signal) Package Outlines/Reference Dimension of Soldering pad

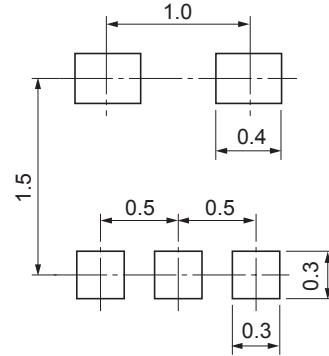
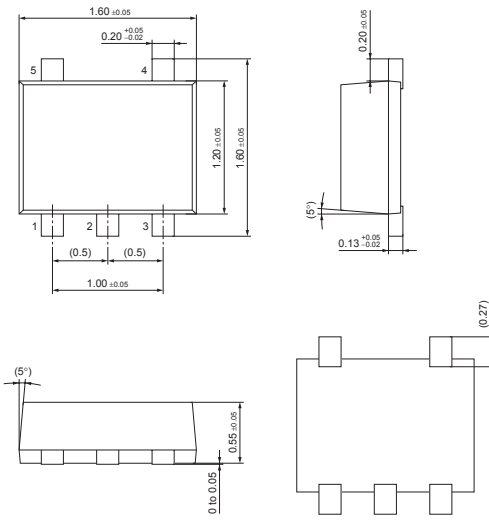
() : Reference Value Unit: mm



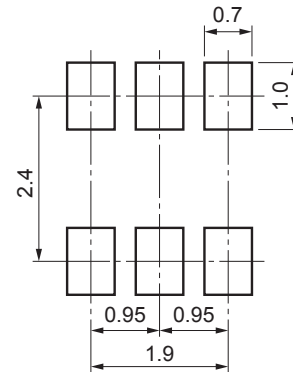
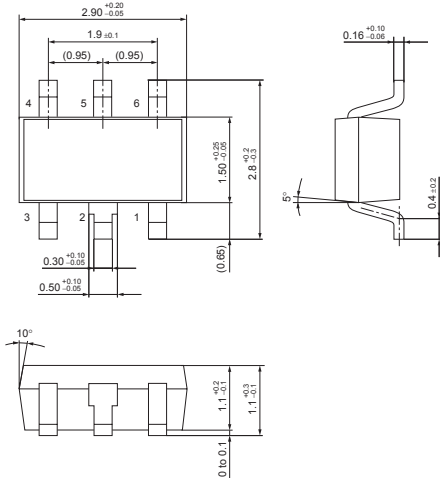
Surface mounting type (Small signal) Package Outlines/Reference Dimension of Soldering pad

() : Reference Value Unit: mm

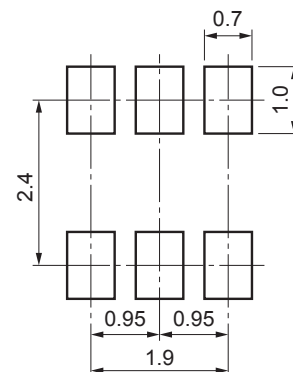
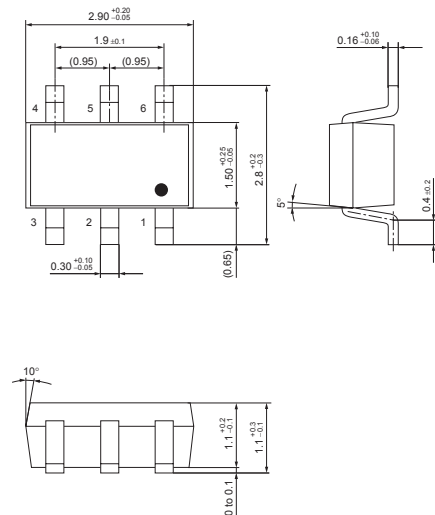
SSMini5-F3 (JEITA: SC-107BB)



Mini6-G1

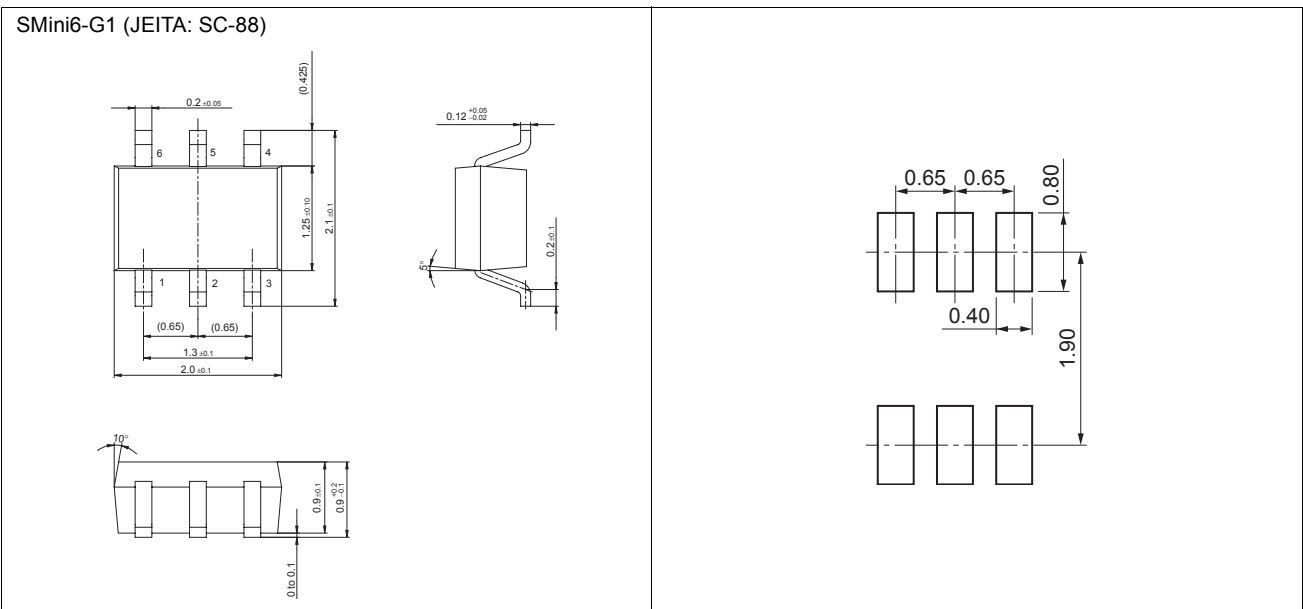
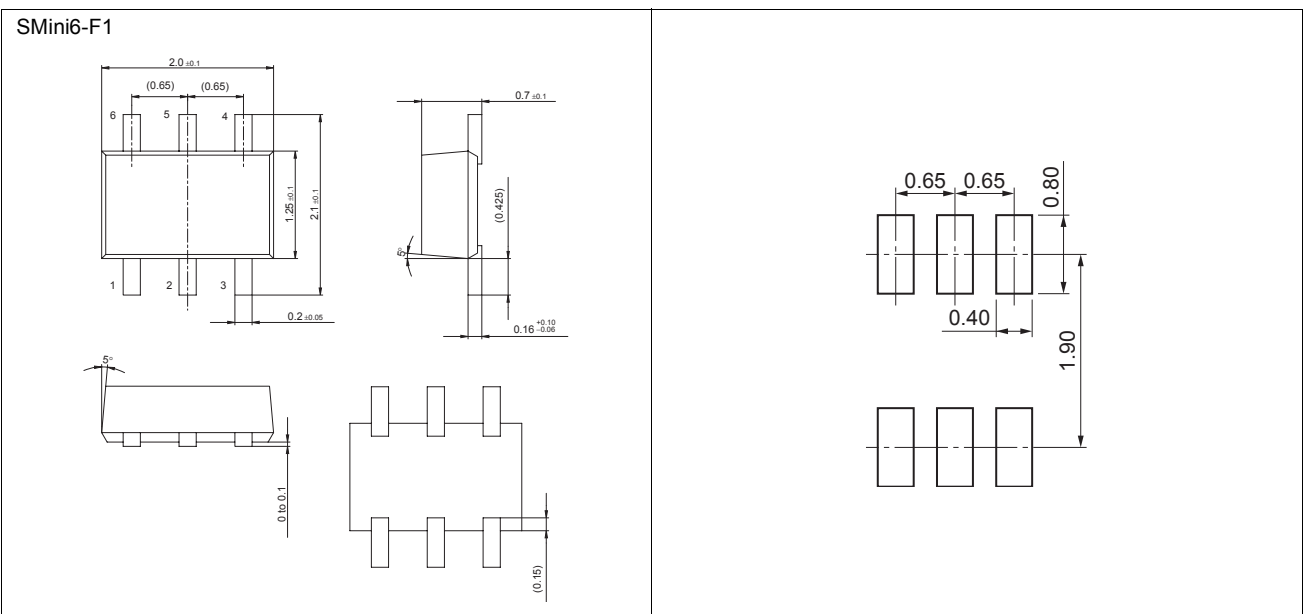
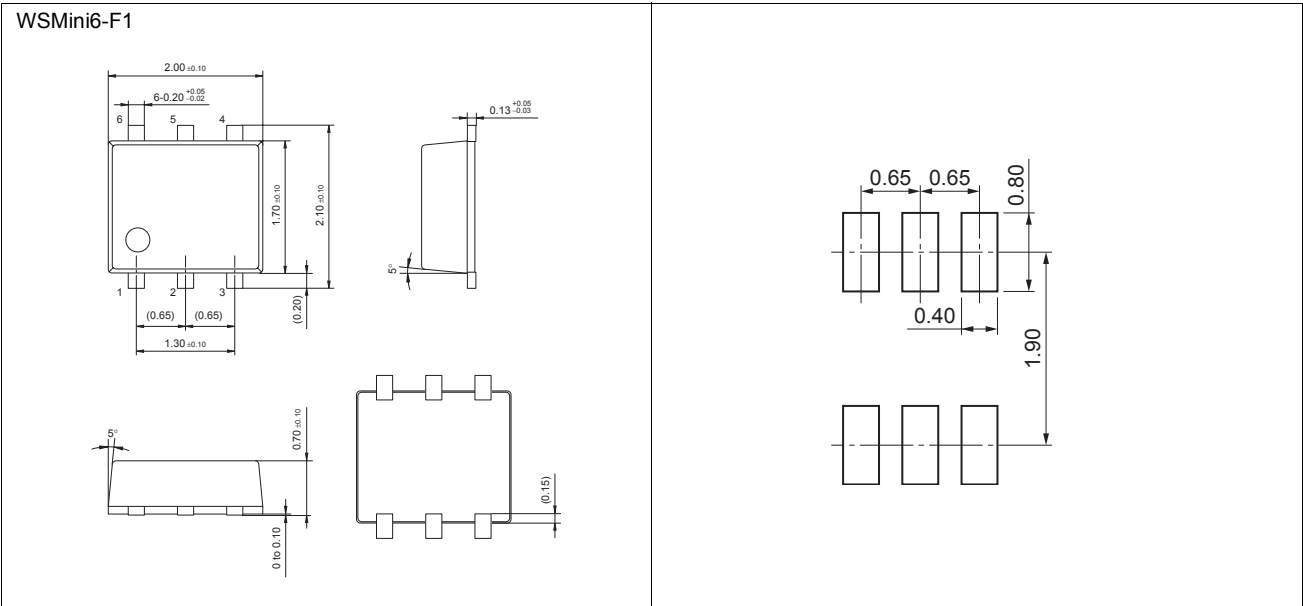


Mini6-G2 (JEITA: SC-74, JEDEC: MO-178-AB)



Surface mounting type (Small signal) Package Outlines/Reference Dimension of Soldering pad

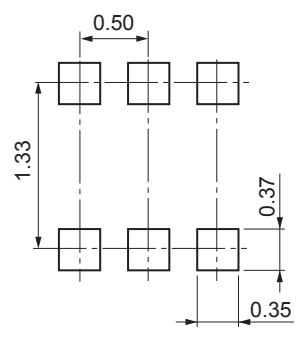
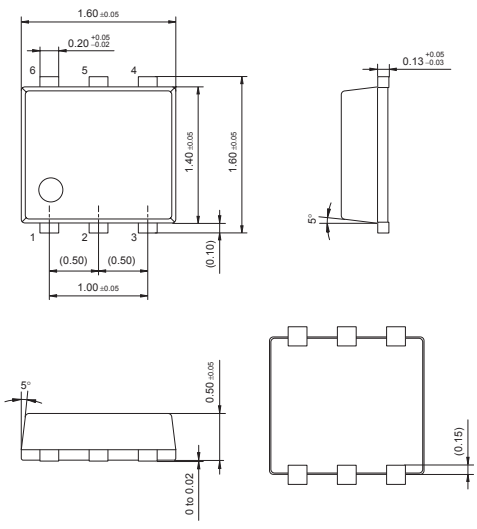
() : Reference Value Unit: mm



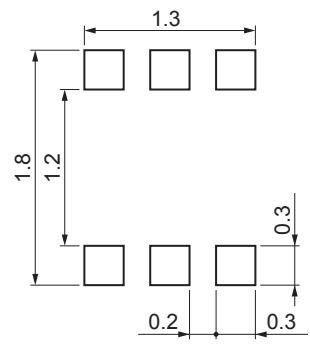
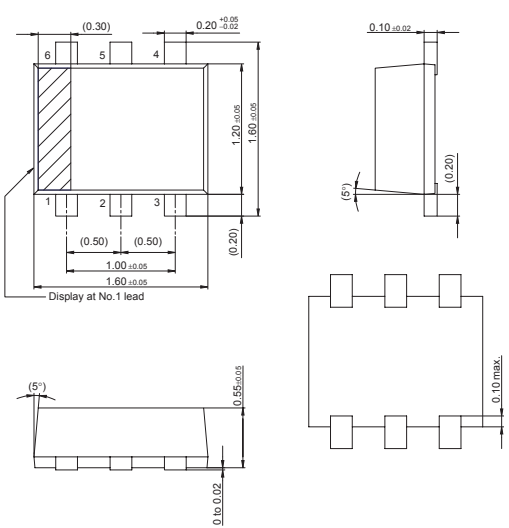
Surface mounting type (Small signal) Package Outlines/Reference Dimension of Soldering pad

() : Reference Value Unit: mm

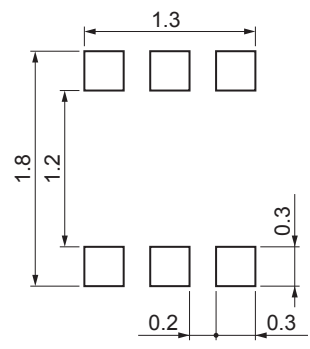
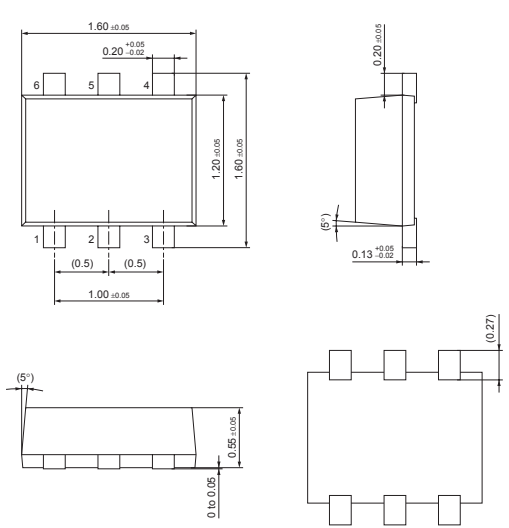
WSSMini6-F1



SSMini6-F1 (JEITA: SC-107C)

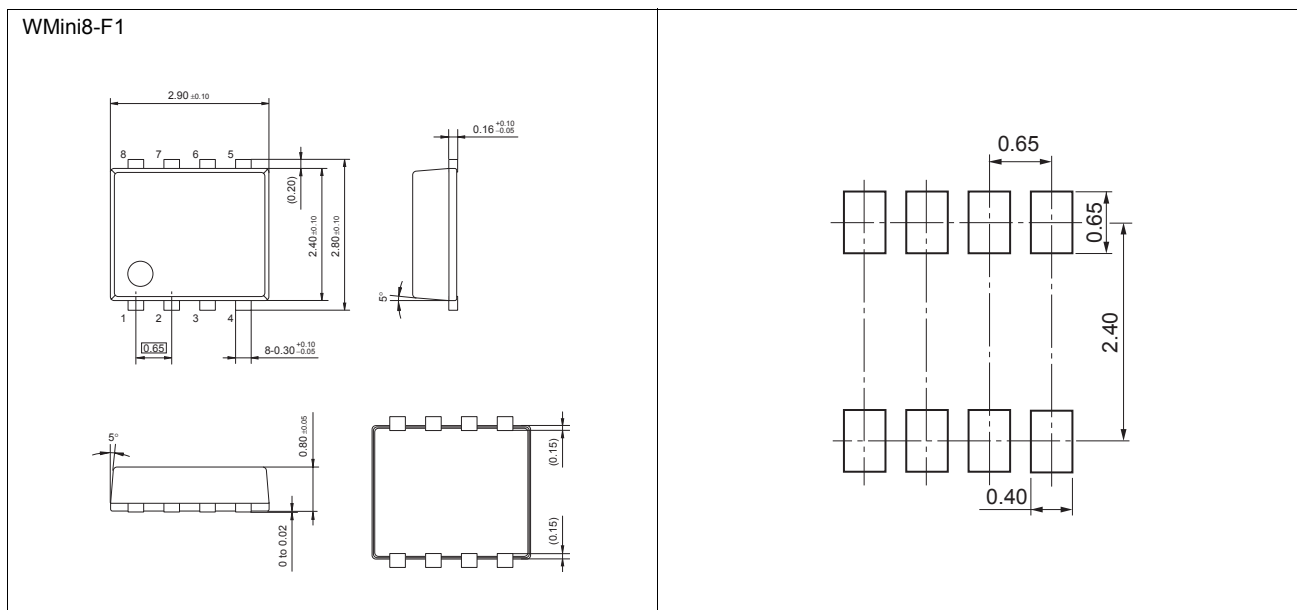


SSMini6-F2 (JEITA: SC-107C)

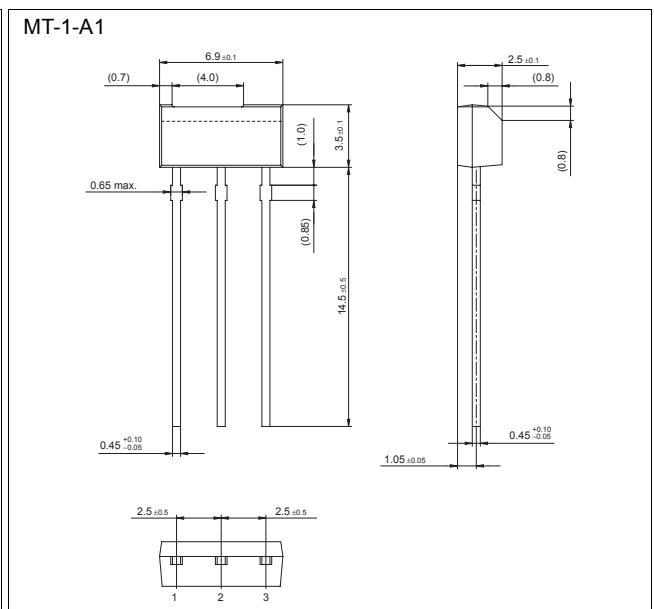
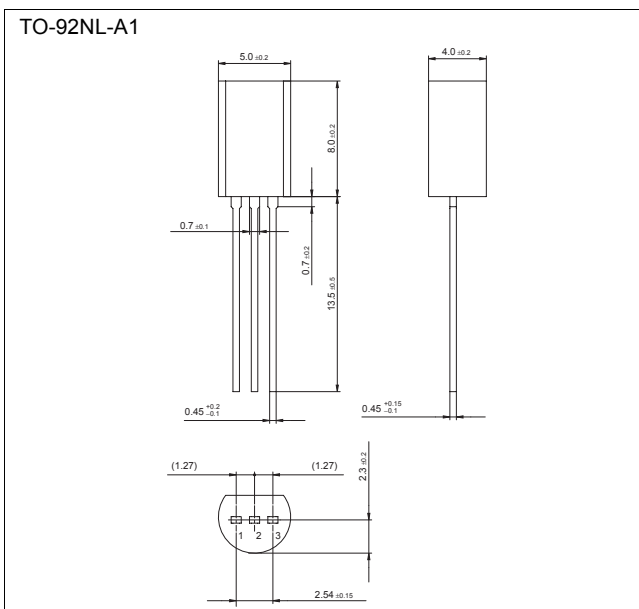
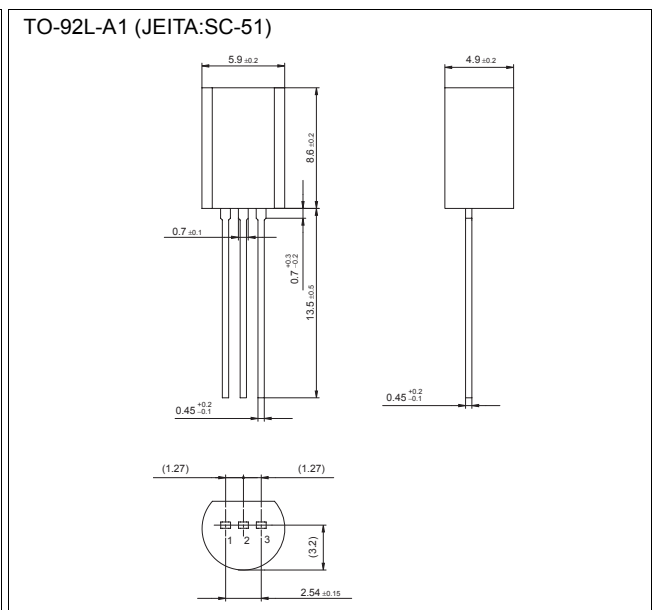
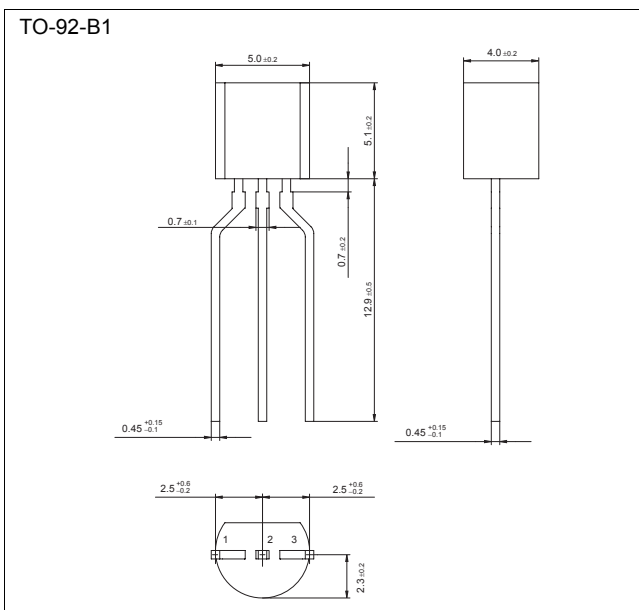
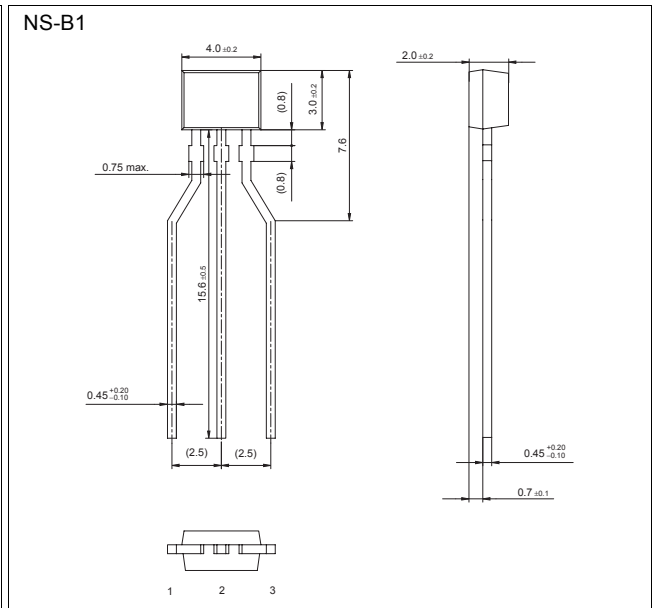
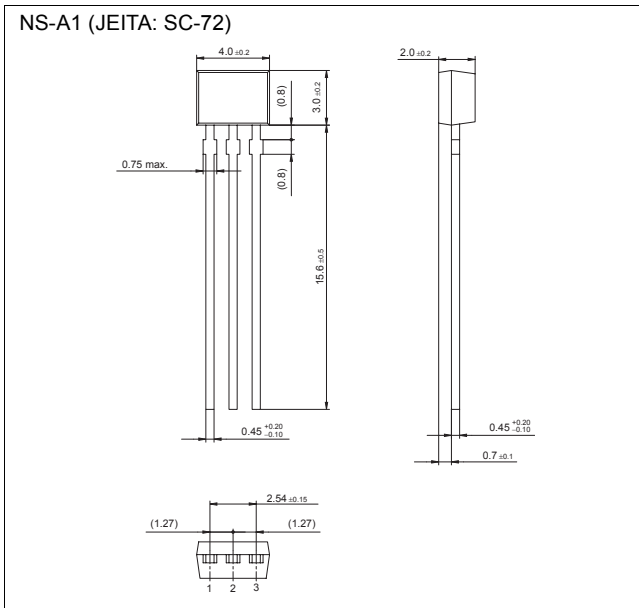


Surface mounting type (Small signal) Package Outlines/Reference Dimension of Soldering pad

() : Reference Value Unit: mm



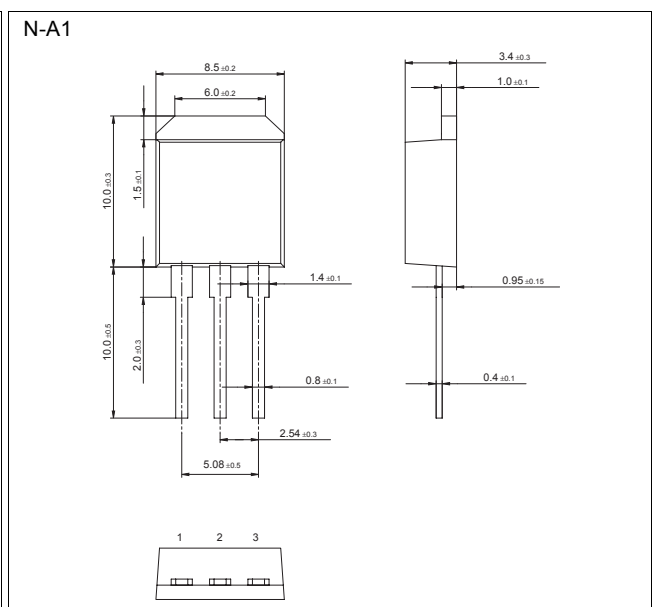
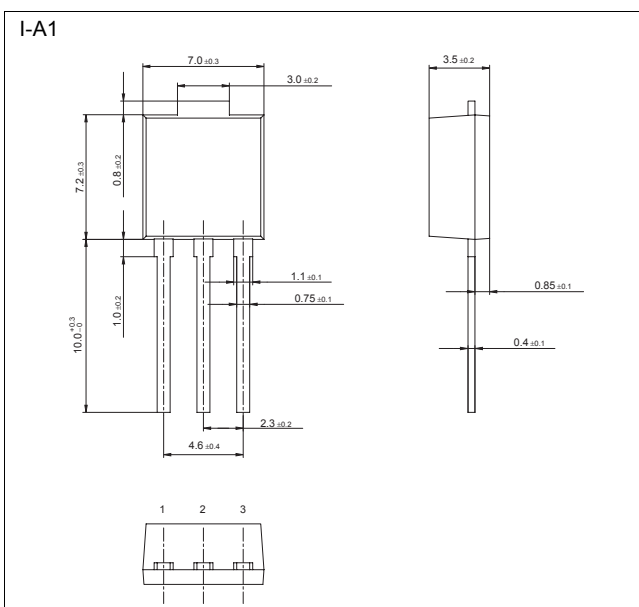
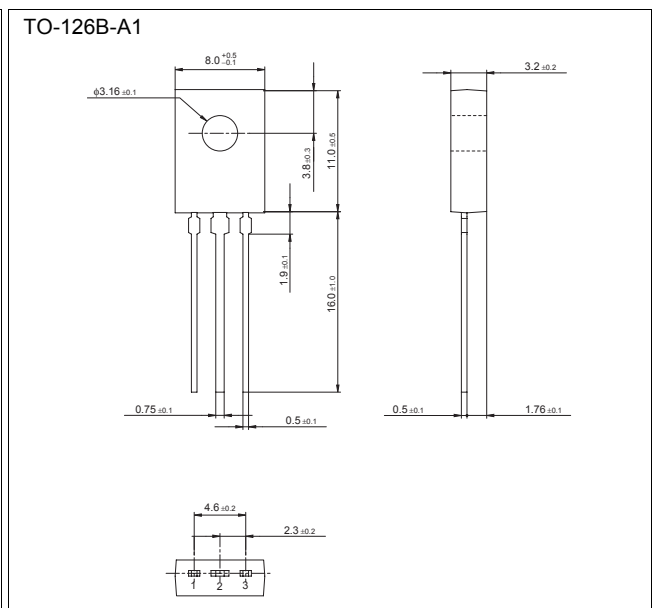
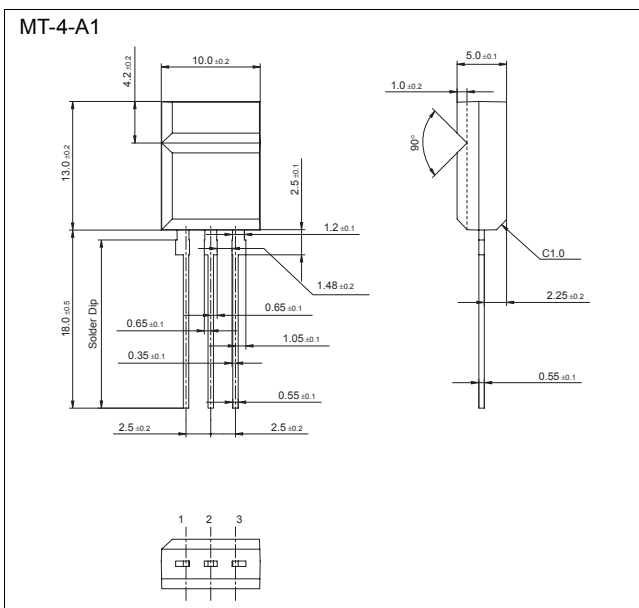
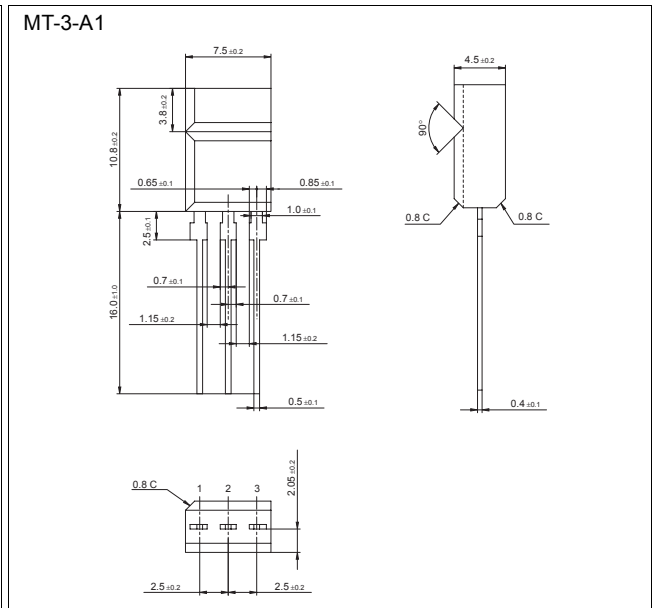
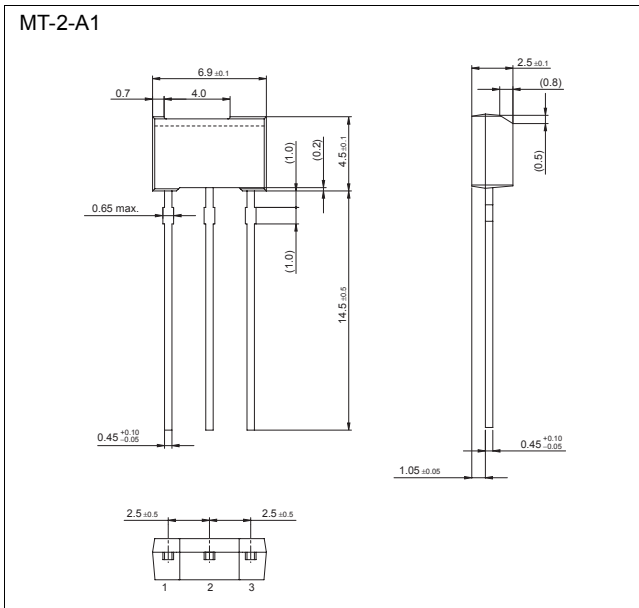
() : Reference Value Unit: mm



Stand-alone type

Package Outlines

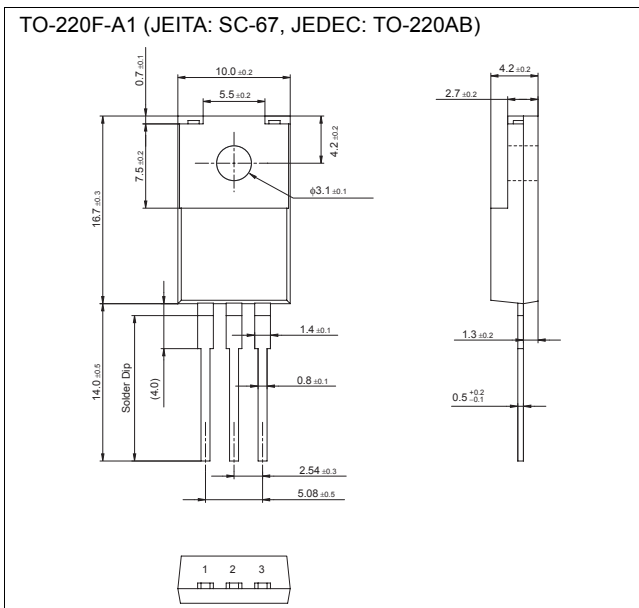
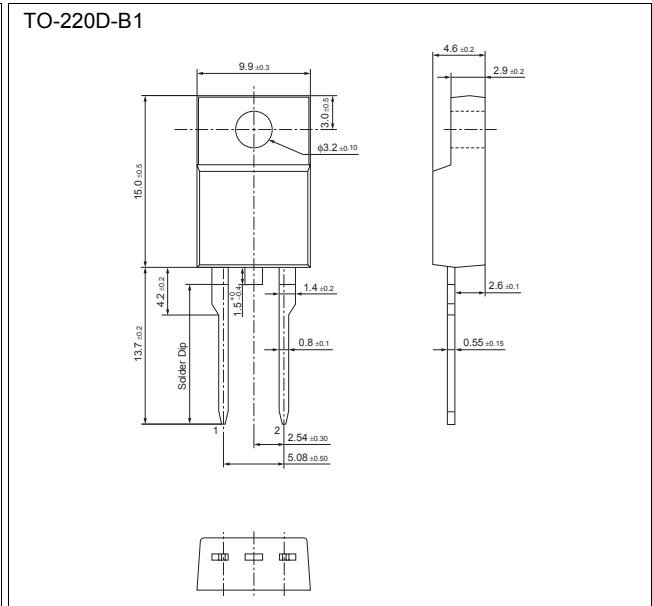
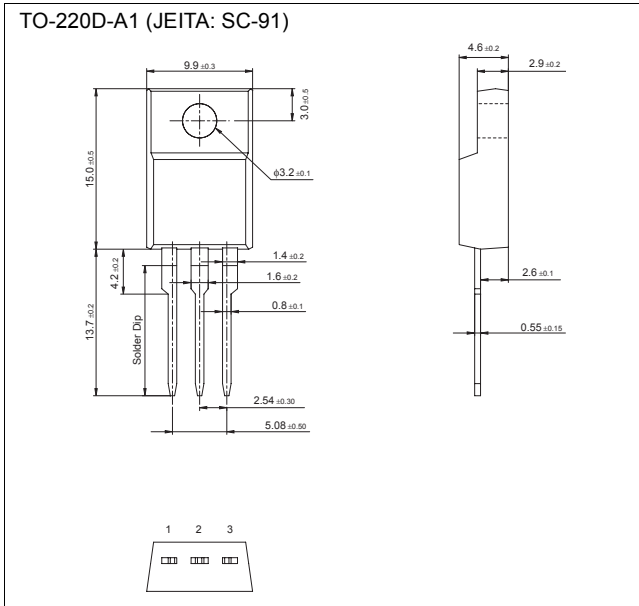
() : Reference Value Unit: mm



Stand-alone type

Package Outlines

() : Reference Value Unit: mm



Maintenance/Discontinued Product List

<Changes in the Product Naming System>

Some maintenance types using Global part number have been changed.
Please order using the Global part number.
If you have any questions, please contact our sales division for your area (listed on the back cover).

<Discontinued Types>

These types have been discontinued and no further handling can be performed.

<Planned Discontinued Types>

These types are scheduled to be discontinued.
Customers who have used these types in the past are hereby notified that sales of these types have ended.

<Maintenance Types>

Because sales of these types are planned to be discontinued, new sales of such types are not possible. Further, existing customers with new applications should switch to replacement types.

<Planned Maintenance Types>

These types are scheduled to become maintenance types.
For new applications, please refrain from using these types.

Maintenance/Discontinued Product List

Part No.		Alternative	Page	Part No.		Alternative	Page	Part No.		Alternative	Page
1N4148	SM	—	—	2SA1747	M	2SB0709A	H9	2SB0745	SD	—	—
1N4148S	SM	—	—	2SA1762	SD	—	—	2SB0745A	SD	—	—
2SA0564	D	2SA1309A	H9	2SA1790	D	2SA1790G	H10	2SB0747	M	—	—
2SA0564A	M	2SA1309A	H9	2SA1791	D	2SA1791G	H10	2SB0750	M	—	—
2SA0699	M	—	—	2SA1806	D	2SA1806G	H10	2SB0750A	M	—	—
2SA0699A	M	—	—	2SA1816	SM	—	—	2SB0751	M	—	—
2SA0719	SM	—	—	2SA1817	D	—	—	2SB0751A	M	—	—
2SA0748	D	—	—	2SA1858	SM	—	—	2SB0760	D	—	—
2SA0838	SM	—	—	2SA1868	M	—	—	2SB0760A	D	—	—
2SA0887	M	—	—	2SA1888	SM	—	—	2SB0760B	D	—	—
2SA0900	SM	—	—	2SA1890	SM	2SA1890G	H23	2SB0761	M	—	—
2SA0913	D	—	—	2SA1949	SM	—	—	2SB0761A	M	—	—
2SA0914	M	—	—	2SA1950	D	—	—	2SB0762	M	2SB0942	H25
2SA0921	SM	—	—	2SA1951	M	—	—	2SB0762A	M	2SB0942A	H25
2SA0921A	SM	—	—	2SA1961	M	—	—	2SB0766	SM	2SB0766G	H23
2SA0963	M	—	—	2SA1966	D	—	—	2SB0766A	SM	2SB0766G	H23
2SA100	D	—	—	2SA1982	SM	—	—	2SB0767	SM	2SB0767G	H23
2SA101	D	—	—	2SA2004	D	—	—	2SB0774	SM	—	—
2SA102	D	—	—	2SA2008	D	—	—	2SB0779	SM	—	—
2SA103	D	—	—	2SA2009	SM	—	—	2SB0788	SD	—	—
2SA1034	SM	—	—	2SA2010	SM	—	—	2SB0789	SM	2SB0789G	H24
2SA1035	SM	—	—	2SA2021	SM	—	—	2SB0789A	SM	2SB0789G	H24
2SA104	D	—	—	2SA2046	SM	—	—	2SB0790	SD	—	—
2SA1060	D	—	—	2SA2076	SM	—	—	2SB0792	SM	—	—
2SA1061	SM	—	—	2SA341	D	—	—	2SB0793	SD	—	—
2SA1062	SM	—	—	2SA342	D	—	—	2SB0793A	SD	—	—
2SA1063	D	—	—	2SA546	D	—	—	2SB0814	D	—	—
2SA1064	D	—	—	2SA546A	D	—	—	2SB0819	SD	—	—
2SA1065	D	—	—	2SA547	D	—	—	2SB0835	SD	2SB0956G	H23
2SA1092	D	—	—	2SA547A	D	—	—	2SB0867	M	—	—
2SA1096	SM	—	—	2SA550	D	—	—	2SB0868	M	2SB0944	H25
2SA1096A	SM	—	—	2SA550A	D	—	—	2SB0869	M	2SB0945	H25
2SA1110	M	—	—	2SA637	D	—	—	2SB0869A	SM	—	—
2SA1111	D	—	—	2SA666	D	—	—	2SB0871	M	2SB0948	H25
2SA1112	D	—	—	2SA666A	D	—	—	2SB0871A	M	2SB0948A	H25
2SA1123A	SM	—	—	2SA685	D	—	—	2SB0872	M	2SB0951	H25
2SA1124	SM	—	—	2SA699B	D	—	—	2SB0872A	M	2SB0951A	H25
2SA1124A	SM	—	—	2SA721	D	—	—	2SB0872B	SM	—	—
2SA1125	M	—	—	2SA722	D	—	—	2SB0873A	SM	—	—
2SA1127	SM	—	—	2SA730	D	—	—	2SB0894	D	—	—
2SA1128	SM	—	—	2SA731	D	—	—	2SB0902	M	—	—
2SA1133	M	—	—	2SA731A	D	—	—	2SB0925	M	—	—
2SA1133A	M	—	—	2SA749	D	—	—	2SB0925A	D	—	—
2SA1185	D	—	—	2SA749A	D	—	—	2SB0932	SM	—	—
2SA1254	SD	—	—	2SA751	D	—	—	2SB0935	D	—	—
2SA1309	D	2SA1309A	H9	2SA752	D	—	—	2SB0935A	SM	—	—
2SA1309AI	D	2SA1309A	H9	2SA766	D	—	—	2SB0940	SM	—	—
2SA1310	SM	—	—	2SA774	D	—	—	2SB0940A	SM	—	—
2SA1323	SM	—	—	2SA774A	D	—	—	2SB0940B	SM	—	—
2SA1375	M	—	—	2SA795	D	—	—	2SB0941	SM	—	—
2SA1487	D	—	—	2SA837	D	—	—	2SB0941A	SM	—	—
2SA1495	D	—	—	2SA843	D	—	—	2SB0943	SM	—	—
2SA1498	M	—	—	2SA880	D	—	—	2SB0947	M	—	—
2SA1499	D	—	—	2SA882	D	—	—	2SB0947A	M	—	—
2SA1500	M	—	—	2SA912	D	—	—	2SB0949	SM	—	—
2SA1501	D	—	—	2SA972	D	—	—	2SB0949A	SM	—	—
2SA1512	SM	—	—	2SA973	D	—	—	2SB0950	SM	—	—
2SA1531	SM	—	—	2SA977	D	—	—	2SB0950A	SM	—	—
2SA1531A	SM	—	—	2SB0512	D	—	—	2SB0952	D	—	—
2SA1534	SM	—	—	2SB0512A	D	—	—	2SB0952A	SD	—	—
2SA1534A	SM	—	—	2SB0513	D	—	—	2SB0953	D	—	—
2SA1535	SM	—	—	2SB0513A	D	—	—	2SB0953A	D	—	—
2SA1535A	SM	—	—	2SB0621	SM	—	—	2SB0954	SM	—	—
2SA1550	M	—	—	2SB0641	SD	—	—	2SB0954A	SM	—	—
2SA1605	D	—	—	2SB0642	SD	—	—	2SB0956	SM	2SB0956G	H23
2SA1614	D	—	—	2SB0643	SD	—	—	2SB0967	M	—	—
2SA1619	SM	—	—	2SB0644	SD	—	—	2SB0976	SM	—	—
2SA1619A	SM	—	—	2SB0709	D	2SB0709A	H9	2SB0976A	SM	—	—
2SA1698	D	2SA1767	H9	2SB0710	SM	—	—	2SB0987	D	—	—
2SA1737	D	—	—	2SB0726	SM	—	—	2SB1020	M	—	—

Discontinued Types: D Planned Discontinued: SD Maintenance Types: M Planned Maintenance Types: SM

Note) 1. Alternative product is, almost alike in characteristics and function, not same in all respects. Please examine the content when you use.

2. HW and TA products for MT-2, and TW taping products for surface-mounting products are set as Discontinued types.

3. Lead lead-plated products and separated surface-mounting products (including magazine products) are set as Maintenance types.

Maintenance/Discontinued Product List

Part No.		Alternative	Page	Part No.		Alternative	Page	Part No.		Alternative	Page
2SB1030	SM	—	—	2SB127	D	—	—	2SB1541	D	—	—
2SB1036	SM	—	—	2SB127A	D	—	—	2SB1542	D	2SB1435	H22
2SB1050	SD	—	—	2SB128	D	—	—	2SB1543	D	2SB1416	H22
2SB1052	D	—	—	2SB1288	SM	—	—	2SB1544	D	—	—
2SB1054	D	—	—	2SB128A	D	—	—	2SB1545	D	—	—
2SB1055	M	—	—	2SB129	D	—	—	2SB1546	D	—	—
2SB1056	M	—	—	2SB1297	SM	—	—	2SB1547	D	—	—
2SB1057	D	—	—	2SB1299A	SM	—	—	2SB1553	D	—	—
2SB1057A	SM	—	—	2SB129A	D	—	—	2SB1554	D	—	—
2SB1062	M	—	—	2SB130	D	—	—	2SB157	D	—	—
2SB1063	D	—	—	2SB1317	D	—	—	2SB1573	D	—	—
2SB1063A	SM	—	—	2SB1317A	D	—	—	2SB1575	SM	—	—
2SB1069	M	—	—	2SB1319	SD	—	—	2SB1576	M	—	—
2SB1070	D	—	—	2SB1320	M	2SB1320A	H9	2SB1579	D	—	—
2SB1070A	D	—	—	2SB1321	SM	2SB1321A	H9	2SB158	D	—	—
2SB1071	D	—	—	2SB1322	SM	2SB1322A	H23	2SB1582	D	—	—
2SB1071A	D	—	—	2SB1347	D	—	—	2SB1583	D	2SB0792A	H9
2SB1073	SM	2SB1073G	H23	2SB1361	M	—	—	2SB1584	D	—	—
2SB1075	D	—	—	2SB1362	D	—	—	2SB1585	D	—	—
2SB1108	D	—	—	2SB1371	D	—	—	2SB159	D	—	—
2SB1152	M	—	—	2SB1372	M	—	—	2SB1597	SM	—	—
2SB1154	D	—	—	2SB1373	D	—	—	2SB1598	D	—	—
2SB1155	D	—	—	2SB1376	M	—	—	2SB1599	SM	2SB1599G	H23
2SB1156	D	—	—	2SB1377	M	2SB1322A	H23	2SB160	D	—	—
2SB1157	M	—	—	2SB1378	SM	—	—	2SB1600	D	—	—
2SB1158	M	—	—	2SB1393	M	—	—	2SB1601	D	—	—
2SB1159	SD	—	—	2SB1393A	M	—	—	2SB1603	D	—	—
2SB1160	M	—	—	2SB1398	SM	—	—	2SB1603A	SM	—	—
2SB1161	M	—	—	2SB1413	M	—	—	2SB1604	D	—	—
2SB1162	D	—	—	2SB1414	SM	—	—	2SB1604A	D	—	—
2SB1163	D	—	—	2SB1415	D	—	—	2SB1605	D	—	—
2SB1170	SM	—	—	2SB1417	SM	—	—	2SB1605A	SM	—	—
2SB1171	M	—	—	2SB1419	M	—	—	2SB1606	D	—	—
2SB1171A	M	—	—	2SB1421	D	—	—	2SB1607	D	—	—
2SB1173	SM	—	—	2SB1422	D	—	—	2SB1610	D	—	—
2SB1173A	SM	—	—	2SB1437	D	—	—	2SB1611	D	—	—
2SB1177	SM	—	—	2SB1438	SM	—	—	2SB1612	D	—	—
2SB1178	SM	—	—	2SB1439	SM	—	—	2SB1613	D	—	—
2SB1178A	SM	—	—	2SB1440	SM	2SB1440G	H23	2SB1614	D	—	—
2SB1180	SM	—	—	2SB1446	SM	—	—	2SB1615	D	—	—
2SB1180A	SM	—	—	2SB1447	D	—	—	2SB1618	D	—	—
2SB1190	M	—	—	2SB1456	D	—	—	2SB1619	D	—	—
2SB1190A	M	—	—	2SB1462	D	2SB1462G	H8	2SB1627	D	2SB0709A	H9
2SB1191	SM	—	—	2SB1463	D	2SB1463J	H8	2SB1629	D	—	—
2SB1191A	SM	—	—	2SB1464	D	—	—	2SB1630	D	—	—
2SB1192	SM	—	—	2SB1469	D	—	—	2SB1631	SM	—	—
2SB1192A	SM	—	—	2SB1470	D	—	—	2SB1632	M	—	—
2SB1194	SM	—	—	2SB1473	D	—	—	2SB1633	M	—	—
2SB1195	SM	—	—	2SB1488	D	—	—	2SB1638	D	—	—
2SB1206	M	—	—	2SB1489	D	—	—	2SB1638A	SD	—	—
2SB1207	SM	—	—	2SB1490	D	—	—	2SB1643	SM	—	—
2SB1208	D	—	—	2SB1492	D	—	—	2SB1645	SM	—	—
2SB1209	SD	—	—	2SB1493	D	—	—	2SB1651	D	—	—
2SB1218	M	2SB1218G	H8	2SB1498	M	—	—	2SB1653	D	—	—
2SB1218AI	D	2SB1218G	H8	2SB1499	D	—	—	2SB1662	D	—	—
2SB1219	SM	—	—	2SB1499A	SM	—	—	2SB1663	SM	—	—
2SB1222	D	—	—	2SB1500	M	—	—	2SB1665	D	—	—
2SB1233	SM	—	—	2SB1501	M	—	—	2SB1666	D	—	—
2SB1233A	SM	—	—	2SB1502	D	—	—	2SB1666A	D	—	—
2SB1250	D	—	—	2SB1503	D	—	—	2SB1670	SM	—	—
2SB1251CHIP	D	—	—	2SB1504	SM	—	—	2SB1678	D	—	—
2SB1252	SD	—	—	2SB1526	D	—	—	2SB1680	D	—	—
2SB1252A	SM	—	—	2SB1528	M	—	—	2SB1693	SM	—	—
2SB1253	SD	—	—	2SB1529	M	—	—	2SB1699	SM	—	—
2SB1254	D	—	—	2SB1531	D	—	—	2SB1699G	SM	—	—
2SB1255	D	—	—	2SB1536	D	2SB0937	H25	2SB170	D	—	—
2SB126	D	—	—	2SB1537	D	—	—	2SB171	D	—	—
2SB1264	D	2SA1018	H9	2SB1538	D	—	—	2SB172	D	—	—
2SB1265	M	—	—	2SB1539	D	—	—	2SB1725	SM	—	—
2SB126A	D	—	—	2SB1540	D	—	—	2SB1725A	SM	—	—

Discontinued Types: D Planned Discontinued: SD Maintenance Types: M Planned Maintenance Types: SM

Note) 1. Alternative product is, almost alike in characteristics and function, not same in all respects. Please examine the content when you use.

2. HW and TA products for MT-2, and TW taping products for surface-mounting products are set as Discontinued types.

3. Lead lead-plated products and separated surface-mounting products (including magazine products) are set as Maintenance types.



Maintenance/Discontinued Product List

Part No.	Alternative	Page	Part No.	Alternative	Page	Part No.	Alternative	Page
2SB173	D	—	2SB807	M	—	2SC1667	D	—
2SB174	D	—	2SB812	D	—	2SC1683	D	—
2SB175	D	—	2SB812A	D	—	2SC1683A	D	—
2SB176	D	—	2SB870	D	—	2SC1684	M	2SC3311A H9
2SB177	D	—	2SB895	D	—	2SC1685	M	2SC3311A H9
2SB178	D	—	2SB895A	D	—	2SC1686	D	—
2SB178A	D	—	2SB896	M	—	2SC1687	D	—
2SB178B	D	—	2SB896A	M	—	2SC1688	D	—
2SB232	D	—	2SB977	D	—	2SC1730	M	—
2SB233	D	—	2SB977B	D	—	2SC1778	D	—
2SB234	D	—	2SB979CHIP	D	—	2SC1779	D	—
2SB278	D	—	2SB980	D	—	2SC1780	D	—
2SB279	D	—	2SB981	D	—	2SC1787	D	—
2SB280	D	—	2SB982	D	—	2SC1788	D	—
2SB281	D	—	2SC0828	M	—	2SC1789	D	—
2SB282	D	—	2SC0828A	M	—	2SC1790	D	—
2SB283	D	—	2SC0829	SM	—	2SC1818	D	—
2SB284	D	—	2SC0901	D	—	2SC1819	D	—
2SB285	D	—	2SC0901A	D	—	2SC1845	M	—
2SB286	D	—	2SC1012	D	—	2SC1847	SM	—
2SB287	D	—	2SC1012A	D	—	2SC1848	M	—
2SB288	D	—	2SC1033	D	—	2SC1849	M	2SC3311A H9
2SB289	D	—	2SC1033A	D	—	2SC1851	M	2SC1318 H9
2SB309	D	—	2SC1033AZ	D	—	2SC1852	M	—
2SB310	D	—	2SC1033Z	D	—	2SC1853	M	—
2SB311	D	—	2SC1047	SM	—	2SC1854	M	2SC3311A H9
2SB312	D	—	2SC1073	D	—	2SC1858	D	—
2SB324	D	—	2SC1074	D	—	2SC1885	D	—
2SB335	D	—	2SC1075	D	—	2SC1905	D	—
2SB336	D	—	2SC1076	D	—	2SC1913	D	—
2SB345	D	—	2SC1190	D	—	2SC1929	D	—
2SB346	D	—	2SC1191	D	—	2SC1953	M	—
2SB347	D	—	2SC1192	D	—	2SC1973	D	—
2SB348	D	—	2SC1192A	D	—	2SC1974	D	—
2SB371	D	—	2SC1215	M	—	2SC1975	D	—
2SB376	D	—	2SC1226	M	—	2SC1976	D	—
2SB401	D	—	2SC1226A	M	—	2SC1977	D	—
2SB402	D	—	2SC1257	SM	—	2SC1978	D	—
2SB403	D	—	2SC1273	M	—	2SC1980	SM	—
2SB448	D	—	2SC1303	D	—	2SC1989	M	—
2SB449	D	—	2SC1317	SM	—	2SC1990	M	—
2SB473	D	—	2SC1326	D	—	2SC2034	D	—
2SB475	D	—	2SC1327	D	—	2SC2076	D	—
2SB476	D	—	2SC1328	D	—	2SC2077	D	—
2SB481	D	—	2SC1346	D	—	2SC2085	D	—
2SB493	D	—	2SC1347	D	—	2SC2113	D	—
2SB532	D	—	2SC1354	D	—	2SC2152	D	—
2SB533	D	—	2SC1359	SM	—	2SC2153	D	—
2SB604	D	—	2SC1360	SM	—	2SC2188	SD	—
2SB625	D	—	2SC1360A	SM	—	2SC2192	D	—
2SB626	D	—	2SC1383	SM	—	2SC2206	SD	—
2SB667	D	—	2SC1398	SM	—	2SC2209	SM	—
2SB668	D	—	2SC1398A	SM	—	2SC2257	D	—
2SB668A	D	—	2SC1405	D	—	2SC2263	D	—
2SB669	D	—	2SC1406	D	—	2SC2264	D	—
2SB669A	D	—	2SC1407	D	—	2SC2291	M	—
2SB691	D	—	2SC1440	M	—	2SC2292	M	—
2SB692	D	—	2SC1446	D	—	2SC2294	D	—
2SB695	D	—	2SC1450	D	—	2SC2360	D	—
2SB709AI	D	—	2SC1478	D	—	2SC2361	D	—
2SB713	D	—	2SC1478A	D	—	2SC2377	SD	—
2SB714	D	—	2SC1501	D	—	2SC2405	SM	—
2SB724	D	—	2SC1518	SM	—	2SC2414	D	—
2SB725	D	—	2SC1547	D	—	2SC2415	D	—
2SB759	D	—	2SC1550	D	—	2SC2416	D	—
2SB759A	D	—	2SC1556	D	—	2SC2447	D	—
2SB763	D	—	2SC1565	D	—	2SC2454	D	—
2SB763A	D	—	2SC1565A	D	—	2SC2455	D	—
2SB77	D	—	2SC1566	D	—	2SC2464	SM	—
2SB780	D	—	2SC1620	D	—	2SC2482	SM	—

Discontinued Types: D Planned Discontinued: SD Maintenance Types: M Planned Maintenance Types: SM

- Note) 1. Alternative product is, almost alike in characteristics and function, not same in all respects. Please examine the content when you use.
 2. HW and TA products for MT-2, and TW taping products for surface-mounting products are set as Discontinued types.
 3. Lead lead-plated products and separated surface-mounting products (including magazine products) are set as Maintenance types.

Maintenance/Discontinued Product List

Part No.		Alternative	Page	Part No.		Alternative	Page	Part No.		Alternative	Page
2SC2483	SM	—	—	2SC2860	D	—	—	2SC3707	SM	—	—
2SC2484	D	—	—	2SC2866	M	2SC1473A	H9	2SC3719	D	—	—
2SC2485	D	—	—	2SC2923	D	—	—	2SC3720	D	—	—
2SC2486	D	—	—	2SC2924	M	—	—	2SC3734	SM	—	—
2SC2487	D	—	—	2SC2925	SM	—	—	2SC3737	D	—	—
2SC2488	D	—	—	2SC2988	D	—	—	2SC3738	D	—	—
2SC2489	D	—	—	2SC2989	D	—	—	2SC3743A	SM	—	—
2SC2497	SM	—	—	2SC2991	D	—	—	2SC3791	M	—	—
2SC2497A	SM	—	—	2SC2992	D	—	—	2SC3794	M	—	—
2SC2519	D	—	—	2SC3054	D	—	—	2SC3794A	D	—	—
2SC2556	D	—	—	2SC3077	D	—	—	2SC3795	SM	—	—
2SC2556A	D	—	—	2SC3106	D	—	—	2SC3795A	SM	—	—
2SC2557	D	—	—	2SC3107	D	—	—	2SC3795B	SM	—	—
2SC2561	D	—	—	2SC3108	D	—	—	2SC3796	D	—	—
2SC2567	M	2SC2406	H9	2SC3109	D	—	—	2SC3796A	D	—	—
2SC2582	D	—	—	2SC3110	D	—	—	2SC3797	D	—	—
2SC2590	SM	—	—	2SC3111	D	—	—	2SC3797A	D	—	—
2SC2591	M	—	—	2SC316	D	—	—	2SC3798	SM	—	—
2SC2592	D	—	—	2SC3169	D	—	—	2SC3798A	SM	—	—
2SC2594	M	—	—	2SC3170	D	—	—	2SC3799	SM	—	—
2SC2632	SM	—	—	2SC3171	M	—	—	2SC3799A	SM	—	—
2SC2632A	SM	—	—	2SC3177	SM	—	—	2SC3811	SM	—	—
2SC2633	M	—	—	2SC3187	SM	—	—	2SC3824	SM	—	—
2SC2636	SD	—	—	2SC3210	D	—	—	2SC382400G	SM	—	—
2SC2637	D	—	—	2SC3211	D	—	—	2SC3824A	SM	—	—
2SC2645	M	—	—	2SC3211A	D	—	—	2SC3825	D	—	—
2SC2646	D	—	—	2SC3212	D	—	—	2SC3829	SM	—	—
2SC2647	SD	—	—	2SC3212A	D	—	—	2SC3850	D	—	—
2SC2653	D	—	—	2SC3250	M	—	—	2SC3861	M	—	—
2SC2653H	SM	—	—	2SC3251	M	—	—	2SC3868	D	—	—
2SC2657	D	—	—	2SC3276	D	—	—	2SC3869	M	—	—
2SC2657A	D	—	—	2SC3285	M	—	—	2SC3870	M	—	—
2SC2658	D	—	—	2SC3287	D	—	—	2SC3871	D	—	—
2SC2658A	D	—	—	2SC3288	D	—	—	2SC3872	D	—	—
2SC2659	D	—	—	2SC3289	D	—	—	2SC3873	M	—	—
2SC2659A	D	—	—	2SC3290	D	—	—	2SC3874	D	—	—
2SC2660	D	—	—	2SC3291	D	—	—	2SC3903	D	—	—
2SC2660A	SM	—	—	2SC3311	M	2SC3311A	H9	2SC3904	SM	—	—
2SC2671	D	—	—	2SC3311A1	D	2SC3311A	H9	2SC3909	SM	—	—
2SC2671F	SM	—	—	2SC3313	SM	—	—	2SC3910	M	—	—
2SC2671H	M	—	—	2SC3314	SM	—	—	2SC3933	D	—	—
2SC2680	D	—	—	2SC3315	SM	—	—	2SC3936	SM	2SC3936G	H10
2SC2683	D	—	—	2SC3352	M	—	—	2SC3937	SM	—	—
2SC2684	D	—	—	2SC3352A	M	—	—	2SC3941A	SM	—	—
2SC2685	D	—	—	2SC3353	D	—	—	2SC3942	SM	—	—
2SC2686	D	—	—	2SC3353A	D	—	—	2SC3943	SM	—	—
2SC2687	D	—	—	2SC3354	SM	—	—	2SC3944	SM	—	—
2SC2738	M	—	—	2SC3368	D	—	—	2SC3944A	SM	—	—
2SC2739	D	—	—	2SC3369	M	—	—	2SC3945	D	—	—
2SC2740	M	—	—	2SC3371	M	—	—	2SC3946	SM	—	—
2SC2778	SM	—	—	2SC3371A	SM	—	—	2SC3965	M	—	—
2SC2803	M	—	—	2SC34	D	—	—	2SC3966	D	—	—
2SC2831	M	—	—	2SC3403	D	—	—	2SC3967	D	—	—
2SC2831A	D	—	—	2SC3407	M	—	—	2SC3970	D	—	—
2SC2832	M	—	—	2SC3477	D	—	—	2SC3970A	D	—	—
2SC2832A	D	—	—	2SC3496	SM	—	—	2SC3970B	D	—	—
2SC2833	M	—	—	2SC3496A	SM	—	—	2SC3971	SD	—	—
2SC2833A	M	—	—	2SC35	D	—	—	2SC3971A	SD	—	—
2SC2834	M	—	—	2SC3506	D	—	—	2SC3972	M	—	—
2SC2834A	M	—	—	2SC3508	M	—	—	2SC3972A	SM	—	—
2SC2841	SD	—	—	2SC3509	M	—	—	2SC3973	D	—	—
2SC2843	M	—	—	2SC3526	D	—	—	2SC3973A	D	—	—
2SC2844	D	—	—	2SC3526H	SM	—	—	2SC3973B	D	—	—
2SC2845	D	—	—	2SC3527	D	—	—	2SC3974	D	—	—
2SC2846	M	—	—	2SC3528	D	—	—	2SC3975	D	—	—
2SC2847	D	—	—	2SC3577	SM	—	—	2SC3975A	D	—	—
2SC2848	D	—	—	2SC36	D	—	—	2SC3976	SM	—	—
2SC2849	D	—	—	2SC3610	D	—	—	2SC3977	SM	—	—
2SC2851	M	—	—	2SC3611	SM	—	—	2SC3977A	SM	—	—
2SC2852	M	—	—	2SC3704	SM	—	—	2SC3978	SM	—	—

Discontinued Types: D Planned Discontinued: SD Maintenance Types: M Planned Maintenance Types: SM

Note) 1. Alternative product is, almost alike in characteristics and function, not same in all respects. Please examine the content when you use.

2. HW and TA products for MT-2, and TW taping products for surface-mounting products are set as Discontinued types.

3. Lead lead-plated products and separated surface-mounting products (including magazine products) are set as Maintenance types.



Maintenance/Discontinued Product List

Part No.		Alternative	Page	Part No.		Alternative	Page	Part No.		Alternative	Page
2SC3978A	SM	—	—	2SC4809	D	2SC4809G	H10	2SC5283	D	—	—
2SC3980	SM	—	—	2SC4882	D	—	—	2SC5284	D	—	—
2SC3980A	SM	—	—	2SC4892	SM	—	—	2SC5285	SM	—	—
2SC3981	SM	—	—	2SC4893	M	—	—	2SC5294	M	—	—
2SC3981A	SM	—	—	2SC4894	D	—	—	2SC5295	D	2SC5295G	H10
2SC3982	D	—	—	2SC4895	M	—	—	2SC5309	M	—	—
2SC3982A	D	—	—	2SC4898	SM	—	—	2SC5335	D	—	—
2SC4004	SM	—	—	2SC4929	D	—	—	2SC5340	D	—	—
2SC4026	D	—	—	2SC4960	SM	—	—	2SC5341	D	—	—
2SC4068	D	—	—	2SC4961	D	—	—	2SC5346	SM	—	—
2SC4096	D	—	—	2SC4968	D	—	—	2SC5363	D	—	—
2SC4111	D	—	—	2SC4969	D	—	—	2SC5378	D	—	—
2SC4114	SM	—	—	2SC4970	M	2SC3757	H10	2SC5379	D	—	—
2SC4152	D	—	—	2SC4971	D	—	—	2SC5379G	SM	—	—
2SC4158	D	—	—	2SC4972	D	—	—	2SC538	D	—	—
2SC4190	D	—	—	2SC4973	D	—	—	2SC5380	M	—	—
2SC4238	D	—	—	2SC4974	D	—	—	2SC5380A	SM	—	—
2SC4239	D	—	—	2SC4975	D	—	—	2SC5381	D	—	—
2SC4309	D	—	—	2SC4985	SM	—	—	2SC5381A	SM	—	—
2SC4358	M	—	—	2SC4986	D	—	—	2SC5389	M	—	—
2SC4379	D	—	—	2SC50	D	—	—	2SC538A	D	—	—
2SC4410	SM	—	—	2SC5016	D	—	—	2SC539	D	—	—
2SC4417	SM	—	—	2SC5017	D	—	—	2SC5392	M	—	—
2SC4421	D	—	—	2SC5018	D	—	—	2SC5393	M	—	—
2SC4442	D	—	—	2SC5019	SM	—	—	2SC5405	M	—	—
2SC4444	M	—	—	2SC5020	D	—	—	2SC5406	M	—	—
2SC4471	D	—	—	2SC5021	D	—	—	2SC5406A	SM	—	—
2SC4502	SM	—	—	2SC5026	SM	2SC5026G	H23	2SC5407	M	—	—
2SC4515	D	—	—	2SC5032	D	—	—	2SC5410	D	—	—
2SC4516	M	—	—	2SC5033	D	—	—	2SC5410A	SM	—	—
2SC4528	M	—	—	2SC5034	D	—	—	2SC5412	M	—	—
2SC4533	M	2SC4953	H27	2SC5035	D	—	—	2SC5413	D	—	—
2SC4535	M	—	—	2SC5036	D	—	—	2SC5418	M	—	—
2SC4543	D	—	—	2SC5036A	SM	—	—	2SC5423	M	—	—
2SC4545	SM	—	—	2SC5037	SM	—	—	2SC5428	M	—	—
2SC456	D	—	—	2SC5037A	SM	—	—	2SC5440	SM	—	—
2SC4561	M	—	—	2SC5038	D	—	—	2SC5441	D	—	—
2SC4562	SM	—	—	2SC5063	SM	—	—	2SC5441A	SM	—	—
2SC4576	D	—	—	2SC5077	D	—	—	2SC5442	D	—	—
2SC4599	SM	—	—	2SC5121	SM	—	—	2SC5442A	SM	—	—
2SC4606	SD	—	—	2SC5127	D	—	—	2SC5457	D	—	—
2SC4607	SM	—	—	2SC5128	D	—	—	2SC5472	D	—	—
2SC4621	D	—	—	2SC5145	SM	—	—	2SC5473	SM	—	—
2SC4626	D	—	—	2SC5156	D	—	—	2SC5474	D	—	—
2SC4627	D	—	—	2SC5157	SM	—	—	2SC5475	SM	—	—
2SC4638	D	—	—	2SC5158	D	—	—	2SC5478	SM	—	—
2SC4655	D	—	—	2SC5159	D	—	—	2SC5479	D	—	—
2SC4655J	SM	—	—	2SC5160	D	—	—	2SC5505	SM	—	—
2SC4656	D	—	—	2SC5163	D	—	—	2SC5512	D	—	—
2SC4656J	SM	—	—	2SC5164	D	—	—	2SC5513	SM	—	—
2SC4661	D	—	—	2SC5165	D	—	—	2SC5514	SM	—	—
2SC4665	SM	—	—	2SC5166	D	—	—	2SC5515	SM	—	—
2SC4670	D	—	—	2SC5167	D	—	—	2SC5516	SM	—	—
2SC4687	D	—	—	2SC5190	SM	—	—	2SC5517	SM	—	—
2SC4691	D	2SC4691G	H10	2SC5216	SM	—	—	2SC5518	SM	—	—
2SC4714	SM	—	—	2SC5217	M	—	—	2SC5519	SM	—	—
2SC4715	SM	—	—	2SC5221	SM	—	—	2SC5535	D	—	—
2SC4716	D	—	—	2SC5222	M	—	—	2SC5542	D	—	—
2SC4717	D	—	—	2SC5223	SM	—	—	2SC5546	SM	—	—
2SC4755	D	—	—	2SC5224	M	—	—	2SC5552	SM	—	—
2SC4767	D	—	—	2SC5235	M	—	—	2SC5553	SM	—	—
2SC4768	D	—	—	2SC5243	D	—	—	2SC5556	SM	—	—
2SC477	D	—	—	2SC5244	D	—	—	2SC5557	D	—	—
2SC478	D	—	—	2SC5244A	D	—	—	2SC5573	D	—	—
2SC4780	D	—	—	2SC526	D	—	—	2SC5580	D	—	—
2SC4782	D	—	—	2SC5270	M	—	—	2SC5581	D	—	—
2SC4787	SM	—	—	2SC5270A	M	—	—	2SC5582	D	—	—
2SC4792	D	—	—	2SC5278	D	—	—	2SC5583	D	—	—
2SC4808	D	—	—	2SC5281	D	—	—	2SC5584	D	—	—
2SC4808J	SM	—	—	2SC5282	D	—	—	2SC5591	SM	—	—

Discontinued Types: D Planned Discontinued: SD Maintenance Types: M Planned Maintenance Types: SM

Note) 1. Alternative product is, almost alike in characteristics and function, not same in all respects. Please examine the content when you use.

2. HW and TA products for MT-2, and TW taping products for surface-mounting products are set as Discontinued types.

3. Lead lead-plated products and separated surface-mounting products (including magazine products) are set as Maintenance types.

Maintenance/Discontinued Product List

Part No.		Alternative	Page	Part No.		Alternative	Page	Part No.		Alternative	Page
2SC5592	SM	—	—	2SD0638	SD	—	—	2SD1032	D	—	—
2SC5597	D	—	—	2SD0639	SD	—	—	2SD1032A	D	—	—
2SC5609	SM	—	—	2SD0661	SD	—	—	2SD1043	D	—	—
2SC562	D	—	—	2SD0661A	SD	—	—	2SD1044	D	—	—
2SC5622	SM	—	—	2SD0662	SD	—	—	2SD1051	D	—	—
2SC563	D	—	—	2SD0662A	SD	—	—	2SD1091	M	—	—
2SC5632	SM	—	—	2SD0662B	SD	—	—	2SD1105	D	—	—
2SC563A	D	—	—	2SD0750	D	—	—	2SD1112	D	—	—
2SC5657	SM	—	—	2SD0762	D	—	—	2SD1119	SM	2SD1119G	H23
2SC5671	D	—	—	2SD0762A	M	—	—	2SD1120	M	—	—
2SC571	D	—	—	2SD0767	M	2SC3311A	H9	2SD1121	M	—	—
2SC572	D	—	—	2SD0769	M	2SC1318	H9	2SD1122	M	—	—
2SC5724	SM	—	—	2SD0771	M	2SC2634	H9	2SD1123	M	—	—
2SC5725	SM	—	—	2SD0772	M	—	—	2SD1124	M	—	—
2SC573	D	—	—	2SD0772A	M	—	—	2SD1125	M	—	—
2SC5740	SM	—	—	2SD0772B	M	—	—	2SD1151	D	—	—
2SC58	D	—	—	2SD0772C	SM	—	—	2SD1154	D	—	—
2SC5805	D	—	—	2SD0792	D	—	—	2SD1168	D	—	—
2SC5806	D	—	—	2SD0804	D	—	—	2SD1169	SD	—	—
2SC5809	SM	—	—	2SD0813	D	—	—	2SD1171	D	—	—
2SC581	D	—	—	2SD0814	SM	2SD0814A	H9	2SD1172	D	—	—
2SC5813	SM	—	—	2SD0836	M	2SD1275	H25	2SD1173	D	—	—
2SC582	D	—	—	2SD0836A	M	2SD1275A	H25	2SD1175	SM	—	—
2SC583	D	—	—	2SD0836B	SM	—	—	2SD1176	M	2SD1277	H25
2SC5833	SM	—	—	2SD0837	M	—	—	2SD1176A	M	2SD1277A	H25
2SC5835	D	—	—	2SD0837A	M	—	—	2SD1198	SD	—	—
2SC5836	D	—	—	2SD0837B	D	—	—	2SD1198A	SD	—	—
2SC5837	SM	—	—	2SD0850	D	—	—	2SD1199	SD	—	—
2SC5838	SM	—	—	2SD0856	D	—	—	2SD12	D	—	—
2SC5839	SM	—	—	2SD0856A	M	—	—	2SD1205	SD	—	—
2SC5842	SM	—	—	2SD0857	M	2SD1267	H25	2SD1205A	SD	—	—
2SC5844	SM	—	—	2SD0857A	M	2SD1267A	H25	2SD1206	SD	—	—
2SC585	D	—	—	2SD0857B	M	—	—	2SD1211	SM	—	—
2SC586	D	—	—	2SD0859	M	2SD1263	H25	2SD1214	M	—	—
2SC5869	SM	—	—	2SD0859A	M	—	—	2SD1215	M	—	—
2SC5870	SM	—	—	2SD0860	M	—	—	2SD1216	M	—	—
2SC58A	D	—	—	2SD0860A	M	—	—	2SD1217	M	—	—
2SC5926	SM	—	—	2SD0860B	M	—	—	2SD1218	M	—	—
2SC5927	SM	—	—	2SD0866	M	2SD1271	H25	2SD1219	M	—	—
2SC5928	SM	—	—	2SD0866A	M	2SD1271A	H25	2SD1244	SD	—	—
2SC5929	SM	—	—	2SD0866B	SM	—	—	2SD1245	M	—	—
2SC600	D	—	—	2SD0874	SM	2SD0874G	H23	2SD1251	M	—	—
2SC6045	SM	—	—	2SD0874A	SM	2SD0874G	H23	2SD1251A	SM	—	—
2SC644	D	—	—	2SD0875	SM	2SD0875G	H23	2SD1252	SM	—	—
2SC645	D	—	—	2SD0876	M	2SD1272	H25	2SD1252A	SM	—	—
2SC646	D	—	—	2SD0884	D	—	—	2SD1254	D	—	—
2SC647	D	—	—	2SD0885	M	—	—	2SD1255	M	—	—
2SC687	D	—	—	2SD0886	M	—	—	2SD1256	SM	—	—
2SC696	D	—	—	2SD0886A	M	—	—	2SD1264	SM	—	—
2SC696A	D	—	—	2SD0887	M	—	—	2SD1264A	SM	—	—
2SC697	D	—	—	2SD0888	M	—	—	2SD1264B	SM	—	—
2SC697A	D	—	—	2SD0889	M	—	—	2SD1265	SM	—	—
2SC730	D	—	—	2SD0892	M	—	—	2SD1265A	SM	—	—
2SC731	D	—	—	2SD0892A	M	—	—	2SD1266	SM	—	—
2SC761	D	—	—	2SD0893	D	—	—	2SD1266A	SM	—	—
2SC762	D	—	—	2SD0893A	D	—	—	2SD1266CHIP	M	—	—
2SC821	D	—	—	2SD0946	SM	—	—	2SD1267B	SM	—	—
2SC822	D	—	—	2SD0958	SD	—	—	2SD1268	D	—	—
2SC840	D	—	—	2SD0959	M	—	—	2SD1270	D	—	—
2SC947	D	—	—	2SD0960	M	2SD1269	H25	2SD1273	SM	—	—
2SC948	D	—	—	2SD0961	M	—	—	2SD1273A	SM	—	—
2SC98	D	—	—	2SD0966	SM	—	—	2SD1274	M	—	—
2SC99	D	—	—	2SD0968	SM	—	—	2SD1274A	M	—	—
2SD0389	D	—	—	2SD0968A	SM	—	—	2SD1274B	M	—	—
2SD0389A	M	—	—	2SD0973	SD	—	—	2SD1274C	SM	—	—
2SD0591	M	2SC3311A	H9	2SD0973A	SD	—	—	2SD1275B	SM	—	—
2SD0601	M	2SD0601A	H9	2SD0973B	SD	—	—	2SD1276	SM	—	—
2SD0602	SM	—	—	2SD1009	M	—	—	2SD1276A	SM	—	—
2SD0636	SD	—	—	2SD1010	SM	—	—	2SD1276B	SM	—	—
2SD0637	SD	—	—	2SD1011	M	—	—	2SD1277B	SM	—	—

Discontinued Types: D Planned Discontinued: SD Maintenance Types: M Planned Maintenance Types: SM

Note) 1. Alternative product is, almost alike in characteristics and function, not same in all respects. Please examine the content when you use.

2. HW and TA products for MT-2, and TW taping products for surface-mounting products are set as Discontinued types.

3. Lead lead-plated products and separated surface-mounting products (including magazine products) are set as Maintenance types.



Maintenance/Discontinued Product List

Part No.		Alternative	Page	Part No.		Alternative	Page	Part No.		Alternative	Page
2SD1280	SM	—	—	2SD1526	D	—	—	2SD1774	M	—	—
2SD1280A	M	—	—	2SD1528	M	—	—	2SD1774A	M	—	—
2SD1290	M	—	—	2SD1529	SM	—	—	2SD1775	SD	—	—
2SD1291	M	—	—	2SD1530	M	—	—	2SD1775A	SM	—	—
2SD1295	SM	—	—	2SD1531	D	—	—	2SD1776	D	—	—
2SD13	D	—	—	2SD1533	M	2SD1535	H25	2SD1776A	D	—	—
2SD1301	D	—	—	2SD1534	M	—	—	2SD178	D	—	—
2SD1304	M	—	—	2SD1537	M	—	—	2SD178A	D	—	—
2SD1305	D	—	—	2SD1538	SM	—	—	2SD178Z	D	—	—
2SD1307	M	—	—	2SD1538A	SM	—	—	2SD1807	D	—	—
2SD1315	M	—	—	2SD1539	D	—	—	2SD1808	M	—	—
2SD1316	SD	—	—	2SD1539A	SD	—	—	2SD1808A	SM	—	—
2SD1317	SD	—	—	2SD1541	D	—	—	2SD1819	M	2SD1819G	H8
2SD1318	SD	—	—	2SD1575	M	—	—	2SD1819A	D	2SD1819G	H8
2SD1319	M	—	—	2SD1576	SM	—	—	2SD1820	SM	—	—
2SD1320	SD	—	—	2SD1577	D	—	—	2SD1821	SM	—	—
2SD1321	D	—	—	2SD1608	D	—	—	2SD1831	SM	—	—
2SD1322	SD	—	—	2SD1632	D	—	—	2SD1839	SM	—	—
2SD1323	D	—	—	2SD1634	SM	—	—	2SD1844	M	—	—
2SD1324	SD	—	—	2SD1635	M	—	—	2SD1845	M	—	—
2SD1325	SD	—	—	2SD1636	M	—	—	2SD1846	M	—	—
2SD1326	D	—	—	2SD1641	D	—	—	2SD1847	D	—	—
2SD1327	SD	—	—	2SD1643	M	—	—	2SD1848	M	—	—
2SD1327A	D	—	—	2SD1643A	M	—	—	2SD1849	D	—	—
2SD1330	SD	—	—	2SD1645	M	—	—	2SD1850	D	—	—
2SD1332	M	—	—	2SD1657	M	—	—	2SD189	D	—	—
2SD1333	D	—	—	2SD1663	M	—	—	2SD1890	D	—	—
2SD1334	D	—	—	2SD1679	D	—	—	2SD1891	SD	—	—
2SD1335	D	—	—	2SD1680	D	—	—	2SD1892	SD	—	—
2SD1336	SM	—	—	2SD1703	M	—	—	2SD1893	M	—	—
2SD1336A	SM	—	—	2SD1706	SD	—	—	2SD1894	D	—	—
2SD1346	D	—	—	2SD1707	D	—	—	2SD1895	D	—	—
2SD1350	SD	—	—	2SD1712	M	—	—	2SD189A	D	—	—
2SD1350A	SD	—	—	2SD1713	M	—	—	2SD19	D	—	—
2SD1385	SD	—	—	2SD1714	M	—	—	2SD1909	SM	—	—
2SD1390	M	—	—	2SD1715	M	—	—	2SD1915	M	2SD1938F	H9
2SD1391	SM	—	—	2SD1716	D	—	—	2SD1915F	M	—	—
2SD14	D	—	—	2SD1717	D	—	—	2SD1917	M	—	—
2SD1424	SM	—	—	2SD1718	D	—	—	2SD1934	SM	—	—
2SD1439	D	—	—	2SD1718A	D	—	—	2SD1937	M	—	—
2SD1440	M	—	—	2SD1727	SM	—	—	2SD1938	M	2SD1938F	H9
2SD1441	D	—	—	2SD1728	SM	—	—	2SD1964	D	—	—
2SD1442	SD	—	—	2SD1729	D	—	—	2SD1971	D	—	—
2SD1442A	M	—	—	2SD1730	M	—	—	2SD1973	M	—	—
2SD1443	M	—	—	2SD1731	M	—	—	2SD1975	D	—	—
2SD1443A	M	—	—	2SD1732	D	—	—	2SD1975A	D	—	—
2SD1444	D	—	—	2SD1733	SM	—	—	2SD198	D	—	—
2SD1444A	D	—	—	2SD1734	D	—	—	2SD1985	D	—	—
2SD1445	SM	—	—	2SD1735	SM	—	—	2SD1985A	M	—	—
2SD1445A	SD	—	—	2SD1736	SM	—	—	2SD1985B	SM	—	—
2SD1446	SM	—	—	2SD1737	SM	—	—	2SD198A	D	—	—
2SD1449	M	—	—	2SD1738	SM	—	—	2SD199	D	—	—
2SD1457	D	—	—	2SD1739	D	—	—	2SD1990	D	—	—
2SD1457A	D	—	—	2SD1743	SM	—	—	2SD1991	M	2SD1991A	H9
2SD1458	D	—	—	2SD1743A	SM	—	—	2SD1992	SM	—	—
2SD1461	M	—	—	2SD1744	SM	—	—	2SD1994	SM	—	—
2SD1475	M	—	—	2SD1746	D	—	—	2SD1994B	SM	—	—
2SD1476	M	2SD2000	H25	2SD1748	SM	—	—	2SD200	D	—	—
2SD1478	SM	—	—	2SD1748A	SM	—	—	2SD2001	D	—	—
2SD1479	SM	—	—	2SD1751	SM	—	—	2SD2018	SM	—	—
2SD1480	SM	—	—	2SD1752	D	—	—	2SD2029	D	—	—
2SD1483	M	—	—	2SD1752A	D	—	—	2SD2051	SM	—	—
2SD1486	SD	—	—	2SD1753	SM	—	—	2SD2052	SM	—	—
2SD1487	D	—	—	2SD1770	M	—	—	2SD2053	D	—	—
2SD1488	D	—	—	2SD1770A	M	—	—	2SD2057	D	—	—
2SD1510	D	—	—	2SD1771	SM	—	—	2SD2064	D	—	—
2SD1511	SM	2SD1511G	H23	2SD1771A	SM	—	—	2SD2065	M	—	—
2SD1512	M	2SD1149	H9	2SD1772	SM	—	—	2SD2066	D	—	—
2SD1516	M	—	—	2SD1772A	SM	—	—	2SD2068	M	—	—
2SD1517	SM	—	—	2SD1773	D	—	—	2SD2070	M	2SD1991A	H9

Discontinued Types: D Planned Discontinued: SD Maintenance Types: M Planned Maintenance Types: SM

Note) 1. Alternative product is, almost alike in characteristics and function, not same in all respects. Please examine the content when you use.

2. HW and TA products for MT-2, and TW taping products for surface-mounting products are set as Discontinued types.

3. Lead lead-plated products and separated surface-mounting products (including magazine products) are set as Maintenance types.

Maintenance/Discontinued Product List

Part No.		Alternative	Page	Part No.		Alternative	Page	Part No.		Alternative	Page
2SD2071	M	2SD1992A	H9	2SD2359	D	—	—	2SD2517	D	—	—
2SD2072	M	2SD1993	H9	2SD2360	D	—	—	2SD2518	D	—	—
2SD2073	M	2SD1995	H9	2SD2361	D	—	—	2SD2519	D	—	—
2SD2074	SM	—	—	2SD2362	D	2SD2178	H22	2SD2520	D	—	—
2SD2134	SM	—	—	2SD2363	D	2SD2136	H22	2SD2521	D	—	—
2SD2135	M	—	—	2SD2364	D	—	—	2SD2522	D	—	—
2SD2137	SM	—	—	2SD2365	D	—	—	2SD2523	M	—	—
2SD2138A	SM	—	—	2SD2366	D	—	—	2SD2524	M	—	—
2SD2140	D	—	—	2SD2367	SM	—	—	2SD2527	SM	—	—
2SD2156	M	—	—	2SD2368	SM	—	—	2SD2527A	SM	—	—
2SD2156A	SM	—	—	2SD2369	SM	—	—	2SD2529	M	—	—
2SD2157	M	—	—	2SD2370	SM	—	—	2SD2530	SD	—	—
2SD2157A	M	—	—	2SD2371	SM	—	—	2SD2538	SM	—	—
2SD2158	D	—	—	2SD2372	SM	—	—	2SD2544	SM	—	—
2SD2158A	SM	—	—	2SD2373	SM	—	—	2SD2547	D	—	—
2SD2173	D	—	—	2SD2374	SM	—	—	2SD2548	D	—	—
2SD2180	D	—	—	2SD2375A	SM	—	—	2SD2549	SM	—	—
2SD2181	D	—	—	2SD2404	D	—	—	2SD2554	SM	—	—
2SD2182	M	—	—	2SD2407	M	—	—	2SD2556	D	—	—
2SD2183	SM	—	—	2SD2408	D	—	—	2SD2563	D	—	—
2SD2184	SM	—	—	2SD2409	D	—	—	2SD2575	SM	—	—
2SD2185	SM	2SD2185G	H23	2SD2410	D	—	—	2SD2593	D	—	—
2SD2209	M	—	—	2SD2411	D	—	—	2SD2594	D	—	—
2SD2210	SM	2SD2210G	H23	2SD2412	D	—	—	2SD2595	D	—	—
2SD2214	D	—	—	2SD2413	SM	2SD2413G	H24	2SD2602	D	—	—
2SD2215	SM	—	—	2SD2416	D	—	—	2SD2603	D	—	—
2SD2215A	SM	—	—	2SD2419	D	—	—	2SD2605	SM	—	—
2SD2216	D	2SD2216G	H8	2SD2432	D	—	—	2SD2606	SM	—	—
2SD2221	D	—	—	2SD2433	D	2SD1030	H9	2SD2631	D	—	—
2SD2222	D	—	—	2SD2434	D	—	—	2SD2659	SM	—	—
2SD2240	D	2SD2240G	H8	2SD2435	M	—	—	2SD266	D	—	—
2SD2240A	SM	—	—	2SD2436	D	—	—	2SD2667	SM	—	—
2SD2242	SM	—	—	2SD2443	SM	—	—	2SD266A	D	—	—
2SD2242A	SM	—	—	2SD2455	D	—	—	2SD266B	D	—	—
2SD2242B	SM	—	—	2SD2456	D	—	—	2SD2691	SM	—	—
2SD2249	SM	—	—	2SD2457	SM	—	—	2SD2691A	SM	—	—
2SD2250	D	—	—	2SD2458	D	—	—	2SD2706	SM	—	—
2SD2254	D	—	—	2SD2459	SM	—	—	2SD2715	SM	—	—
2SD2255	D	—	—	2SD246	D	—	—	2SD2715G	SM	—	—
2SD226	D	—	—	2SD2460	D	—	—	2SD299	D	—	—
2SD2260	D	—	—	2SD2464	D	—	—	2SD300	D	—	—
2SD2265	M	—	—	2SD2465	D	—	—	2SD31	D	—	—
2SD2266	D	—	—	2SD2465A	SM	—	—	2SD312	D	—	—
2SD226A	D	—	—	2SD2466	D	—	—	2SD317	D	—	—
2SD226B	D	—	—	2SD2466A	SM	—	—	2SD317A	D	—	—
2SD2273	M	—	—	2SD2467	D	—	—	2SD318	D	—	—
2SD2274	M	—	—	2SD2468	D	—	—	2SD318A	D	—	—
2SD2275	D	—	—	2SD2469	D	—	—	2SD319	D	—	—
2SD2276	D	—	—	2SD2469A	SM	—	—	2SD32	D	—	—
2SD2310	SM	—	—	2SD2472	D	—	—	2SD321	D	—	—
2SD2321	SM	—	—	2SD2473	D	—	—	2SD324	D	—	—
2SD2326	D	—	—	2SD2474	D	—	—	2SD334	D	—	—
2SD2327	D	—	—	2SD2475	D	—	—	2SD35	D	—	—
2SD2328	D	—	—	2SD2476	D	—	—	2SD350	D	—	—
2SD2329	D	—	—	2SD2477	D	—	—	2SD351	D	—	—
2SD2330	M	—	—	2SD2482	D	—	—	2SD36	D	—	—
2SD2331	SM	—	—	2SD2483	D	—	—	2SD365	D	—	—
2SD2332	SM	—	—	2SD2486	SM	—	—	2SD365A	D	—	—
2SD2333	SM	—	—	2SD2496	D	2SD0601A	H9	2SD366	D	—	—
2SD2334	SM	—	—	2SD2501	D	—	—	2SD366A	D	—	—
2SD2335	SM	—	—	2SD2502	D	—	—	2SD367	D	—	—
2SD2336	SM	—	—	2SD2503	D	—	—	2SD379	D	—	—
2SD2340	D	—	—	2SD2504	SM	—	—	2SD380	D	—	—
2SD2341	SM	—	—	2SD2510	M	—	—	2SD390	D	—	—
2SD2341A	SM	—	—	2SD2511	M	—	—	2SD390A	D	—	—
2SD2345	D	2SD2345G	H8	2SD2512	SM	—	—	2SD458	D	—	—
2SD2354	D	—	—	2SD2513	SM	—	—	2SD470	D	—	—
2SD2355	D	—	—	2SD2514	SM	—	—	2SD470B	D	—	—
2SD2356	D	—	—	2SD2515	SM	—	—	2SD5164	SM	—	—
2SD2357	D	—	—	2SD2516	SM	—	—	2SD517	D	—	—

Discontinued Types: D Planned Discontinued: SD Maintenance Types: M Planned Maintenance Types: SM

Note) 1. Alternative product is, almost alike in characteristics and function, not same in all respects. Please examine the content when you use.

2. HW and TA products for MT-2, and TW taping products for surface-mounting products are set as Discontinued types.

3. Lead lead-plated products and separated surface-mounting products (including magazine products) are set as Maintenance types.



Maintenance/Discontinued Product List

Part No.		Alternative	Page	Part No.		Alternative	Page	Part No.		Alternative	Page
2SD5270	SM	—	—	2SK0123	SM	—	—	2SK1223	D	—	—
2SD546	D	—	—	2SK0218	D	—	—	2SK1255	D	—	—
2SD570	D	—	—	2SK0301	SM	—	—	2SK1256	D	—	—
2SD577	D	—	—	2SK0374	SM	—	—	2SK1257	D	—	—
2SD589	D	—	—	2SK0437	D	—	—	2SK1258CHIP	M	—	—
2SD597	D	—	—	2SK0438	D	—	—	2SK1259	D	—	—
2SD598	D	—	—	2SK0601	SM	2SK0601G	H3	2SK1260	M	—	—
2SD601AI	D	—	—	2SK0614	SM	—	—	2SK1261	D	—	—
2SD603	D	—	—	2SK0615	SD	—	—	2SK1262	D	—	—
2SD632	D	—	—	2SK0620	SM	—	—	2SK1263	M	—	—
2SD649	D	—	—	2SK0621	M	—	—	2SK1264	M	—	—
2SD671	D	—	—	2SK0655	SM	—	—	2SK1265	D	—	—
2SD672	D	—	—	2SK0656	SM	—	—	2SK1266	D	—	—
2SD678	D	—	—	2SK0657	SD	—	—	2SK1266A	SM	—	—
2SD678A	D	—	—	2SK0658	SD	—	—	2SK1267	M	—	—
2SD679	D	—	—	2SK0667	M	—	—	2SK127	D	—	—
2SD679A	D	—	—	2SK0667A	M	—	—	2SK127A	D	—	—
2SD691	D	—	—	2SK0751	D	—	—	2SK128	D	—	—
2SD692	D	—	—	2SK0751A	D	—	—	2SK1308	M	—	—
2SD693	D	—	—	2SK0752	D	—	—	2SK1308A	M	—	—
2SD727	D	—	—	2SK0754	D	—	—	2SK1330	D	—	—
2SD728	D	—	—	2SK0755	M	—	—	2SK1331	M	—	—
2SD731	D	—	—	2SK0757	M	—	—	2SK136	D	—	—
2SD746	D	—	—	2SK0758	D	—	—	2SK139	M	—	—
2SD749	D	—	—	2SK0759	M	—	—	2SK1406	D	—	—
2SD751	D	—	—	2SK0760	M	—	—	2SK143	SM	—	—
2SD766	D	—	—	2SK0761	M	—	—	2SK1478	M	—	—
2SD770	M	—	—	2SK0762	D	—	—	2SK1478A	SM	—	—
2SD778	D	—	—	2SK0762A	D	—	—	2SK148	D	—	—
2SD779	D	—	—	2SK0763	D	—	—	2SK1605	M	2SK3043	H28
2SD803	D	—	—	2SK0763A	D	—	—	2SK1606	D	—	—
2SD812	M	2SD1499	H25	2SK0765	D	—	—	2SK1607	D	—	—
2SD849	D	—	—	2SK0765A	D	—	—	2SK1608	M	—	—
2SD855	D	—	—	2SK0769	D	—	—	2SK1609	D	—	—
2SD855A	D	—	—	2SK0770	M	—	—	2SK1610	D	—	—
2SD861	D	—	—	2SK0782	M	—	—	2SK1611	M	—	—
2SD861A	D	—	—	2SK0795	D	—	—	2SK1612	D	—	—
2SD890	D	—	—	2SK0796	D	—	—	2SK1613	D	—	—
2SD891	D	—	—	2SK0796A	D	—	—	2SK1614	D	—	—
2SD901	D	—	—	2SK0804	M	—	—	2SK1635	D	—	—
2SD917	D	—	—	2SK0805	M	—	—	2SK165	D	—	—
2SD919	D	—	—	2SK0806	D	—	—	2SK1687	D	—	—
2SD950	D	—	—	2SK0807	M	—	—	2SK1688	D	—	—
2SD951	D	—	—	2SK0808	D	—	—	2SK1803	M	—	—
2SD952	D	—	—	2SK0808A	D	—	—	2SK1833	D	—	—
2SD953	D	—	—	2SK0809	D	—	—	2SK1834	D	—	—
2SD954	D	—	—	2SK0809A	D	—	—	2SK1842	SM	—	—
2SD967	D	—	—	2SK0818	D	—	—	2SK1846	M	—	—
2SD969	D	—	—	2SK0818A	D	—	—	2SK1860	SM	—	—
2SF1060	D	—	—	2SK0868	M	—	—	2SK1867	D	—	—
2SF1168	D	—	—	2SK0868A	M	—	—	2SK1868	D	—	—
2SF1168A	D	—	—	2SK0870	M	—	—	2SK1935	M	—	—
2SF125	D	—	—	2SK0963	D	—	—	2SK1967	M	2SK3024	H28
2SF229	D	—	—	2SK0963Y	SM	—	—	2SK1980	D	—	—
2SF248	D	—	—	2SK0981	M	—	—	2SK199	D	—	—
2SF248A	D	—	—	2SK0981A	M	—	—	2SK2014	M	—	—
2SF940	D	—	—	2SK0995	M	—	—	2SK2015	D	—	—
2SJ0043	D	—	—	2SK0996	D	—	—	2SK2016	SM	—	—
2SJ0146	D	—	—	2SK1030	D	—	—	2SK2017	D	—	—
2SJ0398	M	—	—	2SK1030A	D	—	—	2SK2032	D	—	—
2SJ0441	D	—	—	2SK1032	D	—	—	2SK2047	D	—	—
2SJ0442	D	—	—	2SK1032A	D	—	—	2SK2122	D	—	—
2SJ0573	D	—	—	2SK1033	D	—	—	2SK2123	D	—	—
2SJ0672	SM	—	—	2SK1034	D	—	—	2SK2124	D	—	—
2SJ0675	SM	—	—	2SK1035	D	—	—	2SK2125	D	—	—
2SJ129	D	—	—	2SK1036	D	—	—	2SK2126	D	—	—
2SJ497	D	—	—	2SK1103	SM	—	—	2SK2127	D	—	—
2SJ84	D	—	—	2SK1104	SM	—	—	2SK2128	D	—	—
2SJ84A	D	—	—	2SK1214	D	—	—	2SK2129	D	—	—
2SK0065	SM	—	—	2SK1216	D	—	—	2SK2130	D	—	—

Discontinued Types: D Planned Discontinued: SD Maintenance Types: M Planned Maintenance Types: SM

Note) 1. Alternative product is, almost alike in characteristics and function, not same in all respects. Please examine the content when you use.

2. HW and TA products for MT-2, and TW taping products for surface-mounting products are set as Discontinued types.

3. Lead lead-plated products and separated surface-mounting products (including magazine products) are set as Maintenance types.

Maintenance/Discontinued Product List

Part No.		Alternative	Page	Part No.		Alternative	Page	Part No.		Alternative	Page
2SK2210	D	—	—	2SK3039	D	—	—	2SK3671	SM	—	—
2SK2211	SM	2SK2211G	H3	2SK3040	D	—	—	2SK3672	SM	—	—
2SK2276	M	2SK3022	H28	2SK3042	M	—	—	2SK3723	SM	—	—
2SK2277	SM	—	—	2SK3044	D	—	—	2SK3731	SM	—	—
2SK2323	D	—	—	2SK3046	SM	—	—	2SK379	M	—	—
2SK2324	D	—	—	2SK3049	SM	—	—	2SK380	M	—	—
2SK2325	D	—	—	2SK3073	D	—	—	2SK3895	SM	—	—
2SK2326	D	—	—	2SK3073A	D	—	—	2SK3895A	SM	—	—
2SK2327	M	—	—	2SK3091	SM	—	—	2SK3896	SM	—	—
2SK2340	SM	—	—	2SK3123	M	—	—	2SK3996	SM	—	—
2SK2342	D	—	—	2SK3124	SM	—	—	2SK3997	SM	—	—
2SK2374	SM	—	—	2SK316	D	—	—	2SK3998	SM	—	—
2SK2375	SM	—	—	2SK3164	SM	—	—	2SK3999	SM	—	—
2SK2377	D	—	—	2SK3165	D	—	—	2SK4000	SM	—	—
2SK2380	D	—	—	2SK3166	D	—	—	2SK4001	SM	—	—
2SK2383	SM	—	—	2SK3167	D	—	—	2SK4029	SM	—	—
2SK2392	SM	—	—	2SK3168	D	—	—	2SK4072	SM	—	—
2SK247	D	—	—	2SK3169	D	—	—	2SK495	M	—	—
2SK2474	M	—	—	2SK3178	D	—	—	2SK496	M	—	—
2SK2495	M	—	—	2SK3180	SM	—	—	2SK497	M	—	—
2SK2501	D	—	—	2SK3181	SM	—	—	2SK498	M	—	—
2SK2502	D	—	—	2SK3182	D	—	—	2SK499	M	—	—
2SK2509	D	—	—	2SK3183	D	—	—	2SK50	D	—	—
2SK2537	D	—	—	2SK3184	D	—	—	2SK500	M	—	—
2SK2538	M	—	—	2SK3185	SM	—	—	2SK501	M	—	—
2SK2566	D	—	—	2SK3186	SM	—	—	2SK501A	M	—	—
2SK2571	SM	—	—	2SK3187	D	—	—	2SK502	M	—	—
2SK2572	D	—	—	2SK3188	SM	—	—	2SK502A	M	—	—
2SK2573	D	—	—	2SK3189	D	—	—	2SK503	M	—	—
2SK2574	D	—	—	2SK3190	D	—	—	2SK503A	M	—	—
2SK2575	D	—	—	2SK3191	SM	—	—	2SK56	D	—	—
2SK2576	D	—	—	2SK3192	SM	—	—	2SK602	M	—	—
2SK2577	D	—	—	2SK3193	SM	—	—	2SK602A	M	—	—
2SK2578	D	—	—	2SK3194	D	—	—	2SK603	M	—	—
2SK2579	D	—	—	2SK3196	D	—	—	2SK603A	M	—	—
2SK2580	D	—	—	2SK32	D	—	—	2SK604	M	—	—
2SK2581	D	—	—	2SK3202	SM	—	—	2SK604A	M	—	—
2SK2588	D	—	—	2SK321	D	—	—	2SK605	M	—	—
2SK2593	D	2SK2593G	H4	2SK3267	SM	—	—	2SK606	D	—	—
2SK2659	D	2SK3024	H28	2SK3268	SM	—	—	2SK607	D	—	—
2SK2660	M	—	—	2SK3277	SM	—	—	2SK608	D	—	—
2SK27	D	—	—	2SK3286	D	—	—	2SK610	M	—	—
2SK2772	M	—	—	2SK3315	D	—	—	2SK617	M	—	—
2SK2790	SM	—	—	2SK3316	D	—	—	2SK617A	M	—	—
2SK2797	M	—	—	2SK3317	D	—	—	2SK624	D	—	—
2SK27A	D	—	—	2SK3318	SM	—	—	2SK626	M	—	—
2SK2863	D	—	—	2SK3329	SM	—	—	2SK627	M	—	—
2SK2868	SM	—	—	2SK3330J	SM	—	—	2SK627A	M	—	—
2SK2923	D	—	—	2SK3333	D	—	—	2SK628	M	—	—
2SK2924	D	—	—	2SK3336	D	—	—	2SK628A	M	—	—
2SK2950	M	—	—	2SK3369	SM	—	—	2SK629	M	—	—
2SK2960	D	—	—	2SK3383	SM	—	—	2SK629A	M	—	—
2SK2971	M	—	—	2SK3392	D	—	—	2SK630	M	—	—
2SK2988	SM	—	—	2SK3400	D	—	—	2SK631	M	—	—
2SK2988J	SM	—	—	2SK3406	D	—	—	2SK632	M	—	—
2SK3023	SM	—	—	2SK3425	M	—	—	2SK632A	M	—	—
2SK3025	SM	—	—	2SK3428	M	—	—	2SK633	M	—	—
2SK3026	D	—	—	2SK3429	M	—	—	2SK633A	M	—	—
2SK3027	D	—	—	2SK3452	D	—	—	2SK634	M	—	—
2SK3028	SM	—	—	2SK3494	SM	—	—	2SK634A	M	—	—
2SK3029	D	—	—	2SK3559	SM	—	—	2SK635	M	—	—
2SK3030	SM	—	—	2SK3560	SM	—	—	2SK636	M	—	—
2SK3031	SM	—	—	2SK3578	SM	—	—	2SK637	M	—	—
2SK3032	D	—	—	2SK3585	SM	—	—	2SK638	M	—	—
2SK3033	D	—	—	2SK3592	SM	—	—	2SK638A	M	—	—
2SK3034	D	—	—	2SK3628	SM	—	—	2SK648	D	—	—
2SK3035	D	—	—	2SK3636	SM	—	—	2SK650	D	—	—
2SK3036	D	—	—	2SK3637	SM	—	—	2SK651	D	—	—
2SK3037	D	—	—	2SK3652	SM	—	—	2SK652	D	—	—
2SK3038	D	—	—	2SK3665	D	—	—	2SK66	D	—	—

Discontinued Types: D Planned Discontinued: SD Maintenance Types: M Planned Maintenance Types: SM

Note) 1. Alternative product is, almost alike in characteristics and function, not same in all respects. Please examine the content when you use.

2. HW and TA products for MT-2, and TW taping products for surface-mounting products are set as Discontinued types.

3. Lead lead-plated products and separated surface-mounting products (including magazine products) are set as Maintenance types.



Maintenance/Discontinued Product List

Part No.		Alternative	Page	Part No.		Alternative	Page	Part No.		Alternative	Page
2SK689	D	—	—	3SK0285	D	—	—	M256ML02CHIP	SM	—	—
2SK691	D	—	—	3SK0286	D	—	—	M257MM03CHIP	SM	—	—
2SK697	D	—	—	3SK0287	SM	—	—	M271ML5000NX	SM	—	—
2SK742	D	—	—	3SK0301	D	—	—	M32CA	SM	—	—
2SK742A	D	—	—	3SK0302	D	—	—	M47F	D	—	—
2SK743	D	—	—	3SK0303	D	—	—	M59C	D	—	—
2SK743A	D	—	—	3SK0304	D	—	—	M91F	D	—	—
2SK744	D	—	—	3SK0305	SM	—	—	MA101	D	—	—
2SK744A	D	—	—	3SK0306	SM	—	—	MA10152D	SM	—	—
2SK745	D	—	—	3SK0307	SM	—	—	MA10152E	SM	—	—
2SK745A	D	—	—	3SK0308	SM	—	—	MA10152K	SM	—	—
2SK746	D	—	—	3SK100	D	—	—	MA102	D	—	—
2SK746A	D	—	—	3SK116	D	—	—	MA103	D	—	—
2SK747	D	—	—	3SK117	D	—	—	MA10301	D	—	—
2SK747A	D	—	—	3SK118	D	—	—	MA104	D	—	—
2SK748	D	—	—	3SK125	D	—	—	MA106	D	—	—
2SK748A	D	—	—	3SK128	D	—	—	MA10799F	D	—	—
2SK749	D	—	—	3SK129	D	—	—	MA11	D	—	—
2SK749A	D	—	—	3SK141	D	—	—	MA13	D	—	—
2SK750	D	—	—	3SK142	D	—	—	MA132HK	SM	—	—
2SK750A	D	—	—	3SK183	D	—	—	MA142AI	M	—	—
2SK753	D	—	—	3SK193	D	—	—	MA142KI	SM	—	—
2SK756	D	—	—	3SK200	D	—	—	MA142WAI	SM	MA3J142DG	K3
2SK764	D	—	—	3SK201	D	—	—	MA150D	SM	—	—
2SK764A	D	—	—	3SK202	D	—	—	MA152AI	D	—	—
2SK766	D	—	—	3SK24	D	—	—	MA152KI	D	—	—
2SK767	D	—	—	3SK247	D	—	—	MA152WAI	D	—	—
2SK768	D	—	—	3SK25	D	—	—	MA152WKI	D	—	—
2SK803	D	—	—	3SK280	D	—	—	MA17	D	—	—
2SK83	D	—	—	3SK282	D	—	—	MA172	D	—	—
2SK839	SM	—	—	3SK32	D	—	—	MA18	D	—	—
2SK84	D	—	—	3SK39	D	—	—	MA183	D	—	—
2SK840	SM	—	—	3SK49	D	—	—	MA184	M	—	—
2SK841	SM	—	—	3SK66	D	—	—	MA186	D	—	—
2SK842	SM	—	—	3SK72	D	—	—	MA1S121	M	—	—
2SK862	D	—	—	3SK97	D	—	—	MA200A	SM	—	—
2SK863	D	—	—	DSM361ML50NX	SM	—	—	MA200K	SM	—	—
2SK863A	D	—	—	DSM42BA15D	SD	—	—	MA203	D	—	—
2SK864	D	—	—	DSM42BA15DN	SD	—	—	MA209	D	—	—
2SK864A	D	—	—	DSM78BA4D	SM	—	—	MA21	D	—	—
2SK865	D	—	—	DSM78BA4DN	SM	—	—	MA211	D	—	—
2SK865A	D	—	—	DSM82BA6D	SM	—	—	MA215	D	—	—
2SK866	D	—	—	DSM82BA6DP	SM	—	—	MA22D21	SM	—	—
2SK866A	D	—	—	DSM83BA15D	SM	—	—	MA22D36	SM	—	—
2SK867	D	—	—	DSM87BA6D	SM	—	—	MA23	D	—	—
2SK867A	D	—	—	DSM90BA15D	SM	—	—	MA231	D	—	—
2SK869	D	—	—	DSM90BA15DN	SM	—	—	MA232	D	—	—
2SK955	M	—	—	DSMAM00802	SM	—	—	MA233	D	—	—
2SM125	D	—	—	DSMG05C	D	—	—	MA241	D	—	—
2SM151	D	—	—	DSMG08C	D	—	—	MA242	D	—	—
2SM152	D	—	—	DSMG10C	D	—	—	MA242C	D	—	—
2SM58	D	—	—	DSMG12C	D	—	—	MA242R	D	—	—
2SM58A	D	—	—	DSMG16C	D	—	—	MA24D56	SM	—	—
2SM75	D	—	—	M119BA15D0NX	SM	—	—	MA24D61	SM	—	—
2SM79	D	—	—	M168FCHIP	SM	—	—	MA24D64	SM	—	—
3SF11	D	—	—	M177FCHIP	SM	—	—	MA24D74	SM	—	—
3SK0119	D	—	—	M18G	SM	—	—	MA25	D	—	—
3SK0120	D	—	—	M194FCHIP	SM	—	—	MA251	D	—	—
3SK0139	D	—	—	M195FCHIP	SM	—	—	MA252	D	—	—
3SK0143	D	—	—	M196FCHIP	SM	—	—	MA253	D	—	—
3SK0144	D	—	—	M197FCHIP	SM	—	—	MA26	D	—	—
3SK0169	D	—	—	M200FCHIP	SM	—	—	MA261	D	—	—
3SK0192	D	—	—	M203FCHIP	SM	—	—	MA262	D	—	—
3SK0219	SM	—	—	M217ML03CHIP	SM	—	—	MA263	D	—	—
3SK0220	D	—	—	M21C	D	—	—	MA26304	SM	—	—
3SK0227	D	—	—	M21CA	D	—	—	MA26376	SD	—	—
3SK0268	D	—	—	M21F	D	—	—	MA26T	D	—	—
3SK0269	D	—	—	M23	D	—	—	MA26V01	SD	—	—
3SK0270	SM	—	—	M23C	D	—	—	MA26V02	SD	—	—
3SK0271	D	—	—	M23CA	D	—	—	MA26V03	SD	—	—

Discontinued Types: D Planned Discontinued: SD Maintenance Types: M Planned Maintenance Types: SM

Note) 1. Alternative product is, almost alike in characteristics and function, not same in all respects. Please examine the content when you use.

2. HW and TA products for MT-2, and TW taping products for surface-mounting products are set as Discontinued types.

3. Lead lead-plated products and separated surface-mounting products (including magazine products) are set as Maintenance types.

Maintenance/Discontinued Product List

Part No.		Alternative	Page	Part No.		Alternative	Page	Part No.		Alternative	Page
MA26V04	SD	—	—	MA2C167A	SM	—	—	MA2S377	SD	—	—
MA26V05	SD	—	—	MA2C178	SM	—	—	MA2S707	SD	—	—
MA26V07	SD	—	—	MA2C179	SM	—	—	MA2SV01	SD	—	—
MA26V09	SD	—	—	MA2C180	SM	—	—	MA2SV02	SD	—	—
MA26V11	SD	—	—	MA2C185	SM	—	—	MA2SV03	SD	—	—
MA26V12	SD	—	—	MA2C188	SM	—	—	MA2SV04	SD	—	—
MA26V13	SD	—	—	MA2C195	SM	—	—	MA2SV05	SD	—	—
MA26V14	SD	—	—	MA2C196	SM	—	—	MA2SV07	SD	—	—
MA26V15	SD	—	—	MA2C346	SM	—	—	MA2SV08	SD	—	—
MA26V16	SD	—	—	MA2C700	SM	—	—	MA2SV09	SD	—	—
MA26V17	SD	—	—	MA2C700A	SM	—	—	MA2SV10	SD	—	—
MA26V19	SD	—	—	MA2C719	SM	—	—	MA2SV15	SD	—	—
MA26V20	SD	—	—	MA2C723	SM	—	—	MA2SV24	SD	—	—
MA26V22	SD	—	—	MA2C774	SM	—	—	MA2W077	SM	—	—
MA26W	D	—	—	MA2C775	SM	—	—	MA2W304	SM	—	—
MA26WO	D	—	—	MA2C776	M	—	—	MA2W376	SD	—	—
MA27331	SD	—	—	MA2C840	SD	—	—	MA2WV01	SM	—	—
MA27331G	SD	—	—	MA2C856	SD	—	—	MA2WV02	SD	—	—
MA27376	SD	—	—	MA2C858	SD	—	—	MA2WV03	SD	—	—
MA27376G	SD	—	—	MA2C859	SD	—	—	MA2WV04	SD	—	—
MA27V01	SD	—	—	MA2D601	SM	—	—	MA2WV07	SD	—	—
MA27V02	SD	—	—	MA2D749	SM	—	—	MA2WV09	SD	—	—
MA27V03	SD	—	—	MA2D749A	SM	—	—	MA2WV11	SD	—	—
MA27V04	SD	—	—	MA2D750	SM	—	—	MA2WV12	SM	—	—
MA27V05	SD	—	—	MA2D750A	SM	—	—	MA2WV13	SD	—	—
MA27V07	SD	—	—	MA2D755	SM	—	—	MA2X072	M	—	—
MA27V09	SD	—	—	MA2D760	SM	—	—	MA2X073	SD	—	—
MA27V10	SD	—	—	MA2D760A	SM	—	—	MA2X321	SD	—	—
MA27V11	SD	—	—	MA2DF03	SM	—	—	MA2X3210B	SD	—	—
MA27V12	SD	—	—	MA2F689	M	—	—	MA2X329	SD	—	—
MA27V13	SD	—	—	MA2F690	M	—	—	MA2X333	D	—	—
MA27V14	SD	—	—	MA2H735	SD	—	—	MA2X334	SD	—	—
MA27V15	SD	—	—	MA2H736	SD	—	—	MA2X334B	SD	—	—
MA27V16	SD	—	—	MA2HD07	SD	—	—	MA2X3340G	SD	—	—
MA27V17	SD	—	—	MA2HD08	SD	—	—	MA2X335	SD	—	—
MA27V18	SD	—	—	MA2HD09	SD	—	—	MA2X336	M	—	—
MA27V19	SD	—	—	MA2J372	SM	—	—	MA2X337	D	—	—
MA27V20	SD	—	—	MA2J7282	SM	—	—	MA2X338	SD	—	—
MA27V21	SD	—	—	MA2J7282G	SM	—	—	MA2X339	SD	—	—
MA27V22	SD	—	—	MA2J733	SM	—	—	MA2X341	SD	—	—
MA27V23	SD	—	—	MA2JD24	SM	—	—	MA2X353	M	—	—
MA27V25	SD	—	—	MA2P291	M	—	—	MA2X707	D	—	—
MA28V26	SM	—	—	MA2P291A	SM	—	—	MA2XD15	SM	—	—
MA292	D	—	—	MA2P701	M	—	—	MA2XD17	SM	—	—
MA2B001	SM	—	—	MA2P701A	M	—	—	MA2XV334	D	—	—
MA2B027	SM	—	—	MA2Q643	M	—	—	MA2YD09	M	—	—
MA2B027Q	SM	—	—	MA2Q705	SM	—	—	MA2YD28	SM	—	—
MA2B027T	SM	—	—	MA2Q735	SM	—	—	MA2Z030	SM	—	—
MA2B027W	SM	—	—	MA2Q736	SM	MA22D39	K12	MA2Z030W	SM	—	—
MA2B062	D	—	—	MA2Q737	SM	—	—	MA2Z077	SD	—	—
MA2B064	M	—	—	MA2Q738	SM	—	—	MA2Z081	SD	—	—
MA2B150	SM	—	—	MA2Q739	SM	—	—	MA2Z110	M	MA2J1110G	K3
MA2B161	SM	—	—	MA2QA01	M	—	—	MA2Z111	SM	—	—
MA2B162	SM	—	—	MA2QA02	SM	—	—	MA2Z112	SM	—	—
MA2B162A	SM	—	—	MA2QD01	SM	—	—	MA2Z113	SM	—	—
MA2B170	SM	—	—	MA2QD02	SM	—	—	MA2Z115	SM	—	—
MA2B171	SM	—	—	MA2R064	D	—	—	MA2Z116	SM	—	—
MA2B171A	SM	—	—	MA2R221	SM	MA2J1110G	K3	MA2Z304	SD	—	—
MA2B181	M	—	—	MA2R222	M	MA2J1110G	K3	MA2Z304B	SD	—	—
MA2B182	SM	—	—	MA2R223	SM	MA2J1110G	K3	MA2Z331	SD	—	—
MA2B190	SM	—	—	MA2R782	D	—	—	MA2Z357	SD	—	—
MA2B345	SM	—	—	MA2S075	SM	—	—	MA2Z357E	SD	—	—
MA2B345E	SM	—	—	MA2S082	SM	—	—	MA2Z357J	SD	—	—
MA2C029	SM	—	—	MA2S304	SD	—	—	MA2Z360	SD	—	—
MA2C029Q	SM	—	—	MA2S331	SD	—	—	MA2Z360J	SD	—	—
MA2C029T	SM	—	—	MA2S357	SD	—	—	MA2Z362	D	—	—
MA2C029W	SM	—	—	MA2S367	SD	—	—	MA2Z363	SD	—	—
MA2C165	SM	—	—	MA2S372	SD	—	—	MA2Z363B	D	—	—
MA2C166	SM	—	—	MA2S374	SD	—	—	MA2Z363G	SD	—	—
MA2C167	SM	—	—	MA2S376	SD	—	—	MA2Z364	D	—	—

Discontinued Types: D Planned Discontinued: SD Maintenance Types: M Planned Maintenance Types: SM

Note) 1. Alternative product is, almost alike in characteristics and function, not same in all respects. Please examine the content when you use.

2. HW and TA products for MT-2, and TW taping products for surface-mounting products are set as Discontinued types.

3. Lead lead-plated products and separated surface-mounting products (including magazine products) are set as Maintenance types.



Maintenance/Discontinued Product List

Part No.		Alternative	Page	Part No.		Alternative	Page	Part No.		Alternative	Page
MA2Z365	SD	—	—	MA3D798	SM	—	—	MA3U653	SM	—	—
MA2Z366	SD	—	—	MA3DD81	SM	—	—	MA3U689	SM	—	—
MA2Z366C	M	—	—	MA3F649	SM	—	—	MA3U690	SM	—	—
MA2Z367	SD	—	—	MA3F650	SM	—	—	MA3U749	SM	—	—
MA2Z368	SD	—	—	MA3F653	SM	—	—	MA3U755	SM	—	—
MA2Z370	SD	—	—	MA3F654	M	—	—	MA3U760	SM	—	—
MA2Z371	SD	—	—	MA3F670	SM	—	—	MA3UD06	SM	—	—
MA2Z372	SD	—	—	MA3F693	D	—	—	MA3V175D	SM	—	—
MA2Z374	SD	—	—	MA3F694	D	—	—	MA3V175E	SM	—	—
MA2Z376	SD	—	—	MA3F749	D	—	—	MA3V176D	SM	—	—
MA2Z379	D	—	—	MA3F749A	SM	—	—	MA3V176E	SM	—	—
MA2Z391	D	—	—	MA3F750	D	MA3D750	K12	MA3V177	SM	—	—
MA2Z392	SM	—	—	MA3F750A	M	MA3D750A	K12	MA3X028	SM	—	—
MA2Z393	D	—	—	MA3F752	D	MA3D752	K12	MA3X028T	SM	—	—
MA2Z728	SM	—	—	MA3F752A	M	MA3D752A	K12	MA3X028W	SM	—	—
MA2Z729	SM	—	—	MA3F755	M	—	—	MA3X057	SD	—	—
MA2Z732	SM	—	—	MA3F756	M	—	—	MA3X075D	SM	—	—
MA2ZV01	SD	—	—	MA3F760	D	—	—	MA3X075E	SM	—	—
MA2ZV02	SD	—	—	MA3F761	D	—	—	MA3X151A	M	MA3X152A	K3
MA2ZV03	SD	—	—	MA3F769	M	—	—	MA3X151D	M	MA3X152D	K3
MA2ZV05	SD	—	—	MA3G645	SM	—	—	MA3X151E	M	MA3X152E	K3
MA2ZV06	SD	—	—	MA3G651	SM	—	—	MA3X151K	M	MA3X152K	K3
MA2ZV08	M	—	—	MA3G655	SM	—	—	MA3X157	M	MA3X157A	K4
MA3000WA	SM	—	—	MA3G695	SM	—	—	MA3X159	SM	—	—
MA301	D	—	—	MA3G751	SM	—	—	MA3X164	SM	—	—
MA302	D	—	—	MA3G751A	SM	—	—	MA3X200E	SM	—	—
MA303	D	—	—	MA3G762	D	—	—	MA3X200F	M	—	—
MA3051T	SM	—	—	MA3J080D	SM	—	—	MA3X551	SD	—	—
MA3066	SM	—	—	MA3J141A	M	MA3J142AG	K3	MA3X555	SD	—	—
MA320	D	—	—	MA3J141D	M	MA3J142DG	K3	MA3X557	SD	—	—
MA322	D	—	—	MA3J141E	M	MA3J142EG	K3	MA3X558	SD	—	—
MA323	D	—	—	MA3J141K	M	MA3J142KG	K3	MA3X717D	SM	—	—
MA3230	SM	—	—	MA3J745	SM	—	—	MA3X730	D	—	—
MA324	D	—	—	MA3J7450G	SM	—	—	MA3X781	SM	—	—
MA3240CHIP	M	—	—	MA3J745D	SM	—	—	MA3X997	SM	—	—
MA325	D	—	—	MA3J745DG	SM	—	—	MA3XD13	SM	—	—
MA325B	D	—	—	MA3J792	SM	—	—	MA3XD14E	M	—	—
MA325G	D	—	—	MA3JP05E	SM	—	—	MA3XD17	SM	—	—
MA326	D	—	—	MA3K649	SM	—	—	MA3Z070	SM	—	—
MA327	D	—	—	MA3K749	SM	—	—	MA3Z080D	SD	—	—
MA328	D	—	—	MA3K755	SM	—	—	MA3Z080E	SD	—	—
MA330	D	—	—	MA3K760	SM	—	—	MA3Z141D	M	—	—
MA332	D	—	—	MA3L204D	SM	MA3X152D	K3	MA3Z141E	M	—	—
MA340	D	—	—	MA3L204E	SM	MA3X152E	K3	MA3Z141K	M	—	—
MA342	D	—	—	MA3L205D	M	MA3X152D	K3	MA3Z142A	M	—	—
MA342-B	D	—	—	MA3L205E	M	MA3X152E	K3	MA3Z142D	M	—	—
MA342-M	D	—	—	MA3L206	SM	—	—	MA3Z142E	M	—	—
MA350	D	—	—	MA3L207	SM	—	—	MA3Z142K	M	—	—
MA351	D	—	—	MA3M154D	SD	—	—	MA3Z142P	M	—	—
MA355	D	—	—	MA3M154E	SD	—	—	MA3Z142Q	M	—	—
MA361	D	—	—	MA3M155D	SD	—	—	MA3Z142T	M	—	—
MA373	D	—	—	MA3M155E	SD	—	—	MA3Z200	D	—	—
MA375	D	—	—	MA3M156	SD	—	—	MA3Z220	D	—	—
MA380	SM	—	—	MA3M553	SD	—	—	MA3Z240	D	—	—
MA381	D	—	—	MA3N753	M	—	—	MA3Z270	M	—	—
MA3A100	SM	—	—	MA3N753A	D	—	—	MA3Z378	M	—	—
MA3D644	D	—	—	MA3S795	SM	—	—	MA3Z551	SD	—	—
MA3D653	SM	—	—	MA3S7950G	SM	—	—	MA3ZT42D	SM	—	—
MA3D654	SM	—	—	MA3S795D	SM	—	—	MA3ZT47	SM	MA3J1470G	K4
MA3D660	SM	—	—	MA3S795DG	SM	—	—	MA4000-(LFS) Series	M	—	—
MA3D689	SM	—	—	MA3SD22F	SM	—	—	MA432	D	—	—
MA3D690	SM	—	—	MA3SD22FG	SM	—	—	MA433	D	—	—
MA3D691	SM	—	—	MA3T152	SM	—	—	MA47	D	—	—
MA3D693	SM	—	—	MA3T152A	SM	—	—	MA48	D	—	—
MA3D694	SM	—	—	MA3T152D	SM	—	—	MA49	D	—	—
MA3D756	SM	—	—	MA3T152E	SM	—	—	MA4L111	SM	—	—
MA3D760	SM	—	—	MA3T152K	SM	—	—	MA4L728	SM	—	—
MA3D761	SM	—	—	MA3T157	SM	—	—	MA4L784	SM	—	—
MA3D768	M	—	—	MA3T157A	SM	—	—	MA4X159	M	MA4X159A	K3
MA3D769	M	—	—	MA3TD01	M	—	—	MA4X348	SM	—	—

Discontinued Types: D Planned Discontinued: SD Maintenance Types: M Planned Maintenance Types: SM

Note) 1. Alternative product is, almost alike in characteristics and function, not same in all respects. Please examine the content when you use.

2. HW and TA products for MT-2, and TW taping products for surface-mounting products are set as Discontinued types.

3. Lead lead-plated products and separated surface-mounting products (including magazine products) are set as Maintenance types.

Maintenance/Discontinued Product List

Part No.		Alternative	Page	Part No.		Alternative	Page	Part No.		Alternative	Page
MA4X743	SM	—	—	MA83	D	—	—	MAZ2560	SM	—	—
MA4X862	SD	—	—	MA860	D	—	—	MAZ3047X	SM	—	—
MA4X998	M	—	—	MA90	D	—	—	MAZ3056D	SM	—	—
MA4X999	SM	—	—	MA999	D	—	—	MAZ3062D	SM	—	—
MA51A	D	—	—	MALM062H	SM	MALM062HG	K17	MAZ3062X	SM	—	—
MA520	D	—	—	MAS3781	SM	—	—	MAZ3068D	SM	—	—
MA521	D	—	—	MAS3781E	SM	—	—	MAZ3075D	SM	—	—
MA522	D	—	—	MAS3784	SM	—	—	MAZ3075E	SM	—	—
MA53	D	—	—	MAU2728	SM	—	—	MAZ3075T	SM	—	—
MA550	D	—	—	MAZ1000 Series(Arank)	D	—	—	MAZ3075X	SM	—	—
MA552	M	—	—	MAZ1020	SM	—	—	MAZ3082D	SM	—	—
MA56	D	—	—	MAZ1022	SM	—	—	MAZ3091E	SM	—	—
MA52002E	SM	—	—	MAZ1024	SM	—	—	MAZ3100D	SM	—	—
MA60	D	—	—	MAZ1027	SM	—	—	MAZ3100E	SM	—	—
MA603	D	—	—	MAZ1030	SM	—	—	MAZ3100X	SM	—	—
MA604	D	—	—	MAZ1033	SM	—	—	MAZ3120D	SM	—	—
MA6047	SM	—	—	MAZ1036	SM	—	—	MAZ3130D	SM	—	—
MA605	D	—	—	MAZ1039	SM	—	—	MAZ3180D	SM	—	—
MA6075	SM	—	—	MAZ1043	SM	—	—	MAZ3200D	SM	—	—
MA61	D	—	—	MAZ1047	SM	—	—	MAZ3200X	SM	—	—
MA615	D	—	—	MAZ1051	SM	—	—	MAZ3330D	SM	—	—
MA619	D	—	—	MAZ1056	SM	—	—	MAZ3390	SM	—	—
MA622	D	—	—	MAZ1062	SM	—	—	MAZ4020	SM	—	—
MA625	D	—	—	MAZ1068	SM	—	—	MAZ4022	SM	—	—
MA627	D	—	—	MAZ1075	SM	—	—	MAZ4024	SM	—	—
MA629	SM	—	—	MAZ1082	SM	—	—	MAZ4027	SM	—	—
MA630	D	—	—	MAZ1091	SM	—	—	MAZ4030	SM	—	—
MA6300	SM	—	—	MAZ1100	SM	—	—	MAZ4033	SM	—	—
MA6390	SM	—	—	MAZ1110	SM	—	—	MAZ4036	SM	—	—
MA6430	SM	—	—	MAZ1120	SM	—	—	MAZ4039	SM	—	—
MA6470	SM	—	—	MAZ1130	SM	—	—	MAZ4043	SM	—	—
MA652	M	—	—	MAZ1140	SM	—	—	MAZ4047	SM	—	—
MA667	D	—	—	MAZ1150	SM	—	—	MAZ4047N	SM	—	—
MA671	D	—	—	MAZ1160	SM	—	—	MAZ4051	SM	—	—
MA691	SM	—	—	MAZ1180	SM	—	—	MAZ4051N	SM	—	—
MA6J784	SM	MA6J786X/MA6J786Y	K9	MAZ1200	SM	—	—	MAZ4056	SM	—	—
MA6X078	SD	—	—	MAZ1220	SM	—	—	MAZ4056N	SM	—	—
MA6X139	SM	—	—	MAZ1240	SM	—	—	MAZ4062	SM	—	—
MA6X344B	SM	—	—	MAZ1270	SM	—	—	MAZ4062N	SM	—	—
MA6X556	SD	—	—	MAZ1300	SM	—	—	MAZ4068	SM	—	—
MA6XD16	SM	—	—	MAZ1330	SM	—	—	MAZ4068N	SM	—	—
MA702	D	—	—	MAZ1360	SM	—	—	MAZ4075	SM	—	—
MA704CHIP	D	—	—	MAZ1390	SM	—	—	MAZ4075N	SM	—	—
MA708	D	—	—	MAZ1470	SM	—	—	MAZ4082	SM	—	—
MA709	D	—	—	MAZ1560	SM	—	—	MAZ4082N	SM	—	—
MA710	D	—	—	MAZ2051	SM	—	—	MAZ4091	SM	—	—
MA711	D	—	—	MAZ2056	SM	—	—	MAZ4091N	SM	—	—
MA711A	D	—	—	MAZ2062	SM	—	—	MAZ4091X	M	—	—
MA74WA	M	—	—	MAZ2068	SM	—	—	MAZ4100	SM	—	—
MA74WK	M	—	—	MAZ2075	SM	—	—	MAZ4100N	SM	—	—
MA768	M	—	—	MAZ2082	SM	—	—	MAZ4110	SM	—	—
MA771	M	—	—	MAZ2091	SM	—	—	MAZ4110N	SM	—	—
MA772	M	—	—	MAZ2100	SM	—	—	MAZ4120	SM	—	—
MA777	M	—	—	MAZ2110	SM	—	—	MAZ4120N	SM	—	—
MA780	SM	—	—	MAZ2120	SM	—	—	MAZ4130	SM	—	—
MA783	SM	—	—	MAZ2130	SM	—	—	MAZ4130N	SM	—	—
MA78M	SM	—	—	MAZ2150	SM	—	—	MAZ4140	SM	—	—
MA79	D	—	—	MAZ2160	SM	—	—	MAZ4150	SM	—	—
MA790	SM	—	—	MAZ2180	SM	—	—	MAZ4150N	SM	—	—
MA7U49	M	—	—	MAZ2200	SM	—	—	MAZ4160	SM	—	—
MA7U50	SM	—	—	MAZ2220	SM	—	—	MAZ4160N	SM	—	—
MA7Z030	SM	—	—	MAZ2240	SM	—	—	MAZ4180	SM	—	—
MA7Z033	SM	—	—	MAZ2270	SM	—	—	MAZ4180N	SM	—	—
MA7Z051	SM	—	—	MAZ2300	SM	—	—	MAZ4200	SM	—	—
MA7Z062	SM	—	—	MAZ2330	SM	—	—	MAZ4200N	SM	—	—
MA7Z082	SM	—	—	MAZ2360	SM	—	—	MAZ4220	SM	—	—
MA7Z091	SM	—	—	MAZ2390	SM	—	—	MAZ4220N	SM	—	—
MA7Z100	SM	—	—	MAZ2430	SM	—	—	MAZ4240	SM	—	—
MA7Z120	SM	—	—	MAZ2470	SM	—	—	MAZ4240N	SM	—	—
MA7Z180	SM	—	—	MAZ2510	SM	—	—	MAZ4270	SM	—	—

Discontinued Types: D Planned Discontinued: SD Maintenance Types: M Planned Maintenance Types: SM

Note) 1. Alternative product is, almost alike in characteristics and function, not same in all respects. Please examine the content when you use.

2. HW and TA products for MT-2, and TW taping products for surface-mounting products are set as Discontinued types.

3. Lead lead-plated products and separated surface-mounting products (including magazine products) are set as Maintenance types.



Maintenance/Discontinued Product List

Part No.		Alternative	Page	Part No.		Alternative	Page	Part No.		Alternative	Page
MAZ4270N	SM	—	—	MAZ7240	SM	—	—	MAZM082H	SM	MAZM082HG	K16
MAZ4300	SM	—	—	MAZ7270	SM	—	—	MAZM100H	SM	MAZM100HG	K16
MAZ4300N	SM	—	—	MAZ7300	SM	—	—	MAZM120H	SM	MAZM120HG	K16
MAZ4330	SM	—	—	MAZ7330	SM	—	—	MAZN033	SM	—	—
MAZ4330N	SM	—	—	MAZ7360	SM	—	—	MAZN036	SM	—	—
MAZ4360	SM	—	—	MAZ7390	SM	—	—	MAZN039	SM	—	—
MAZ4360N	SM	—	—	MAZ7430	SM	—	—	MAZN043	SM	—	—
MAZ4390	SM	—	—	MAZ7470	SM	—	—	MAZN047	SM	—	—
MAZ4390N	SM	—	—	MAZ7510	SM	—	—	MAZN051	SM	—	—
MAZ4510	SM	—	—	MAZ7560	SM	—	—	MAZN056	SM	—	—
MAZ4560	SM	—	—	MAZ9039D	SM	—	—	MAZN062	SM	—	—
MAZ5047	M	—	—	MAZ9062	SM	—	—	MAZN068	SM	—	—
MAZ5051	M	—	—	MAZ9062D	SM	—	—	MAZN075	SM	—	—
MAZ5056	M	—	—	MAZ9075	SM	—	—	MAZN082	SM	—	—
MAZ5062	M	—	—	MAZ9180D	SM	—	—	MAZN091	SM	—	—
MAZ5068	M	—	—	MAZ9500	D	—	—	MAZN100	SM	—	—
MAZ5075	M	—	—	MAZF033	SM	—	—	MAZN110	SM	—	—
MAZ5082	M	—	—	MAZF036	SM	—	—	MAZN120	SM	—	—
MAZ5091	M	—	—	MAZF039	SM	MAZ8039G	K14	MAZR033	SM	—	—
MAZ5100	M	—	—	MAZF043	SM	—	—	MAZR056	SM	—	—
MAZ5110	M	—	—	MAZF047	SM	—	—	MAZR082	SM	—	—
MAZ5120	M	—	—	MAZF051	SM	—	—	MAZR082H	SM	—	—
MAZ5130	M	—	—	MAZF056	SM	—	—	MAZR120	SM	—	—
MAZ5150	M	—	—	MAZF062	SM	—	—	MAZT082D	SM	—	—
MAZ5160	M	—	—	MAZF068	SM	—	—	MAZT100H	SM	MAZT100HG	K16
MAZ5180	M	—	—	MAZF075	SM	—	—	MAZT120H	SM	MAZT120HG	K16
MAZ5200	M	—	—	MAZF082	SM	—	—	MAZU190	D	—	—
MAZ5220	M	—	—	MAZF091	SM	—	—	MAZU200	SM	—	—
MAZ5240	M	—	—	MAZF100	SM	—	—	MAZU220	M	—	—
MAZ6033	D	MAZ8033G	K14	MAZF110	SM	—	—	MAZU240	M	—	—
MAZ6039	D	MAZ8039G	K14	MAZF120	SM	MAZ8120G	K14	MAZU270	M	—	—
MAZ6043	D	—	—	MAZG033	SM	—	—	MAZU300	M	—	—
MAZ6051	D	MAZ8051G	K14	MAZG036	SM	—	—	MAZU330	M	—	—
MAZ6056	D	MAZ8056G	K14	MAZG039	SM	—	—	MAZV082D	SM	—	—
MAZ6062	D	MAZ8062G	K14	MAZG043	SM	—	—	MAZV082DF	SM	—	—
MAZ6068	D	MAZ8068G	K14	MAZG047	SM	—	—	MAZW062H	SM	MAZW062HG	K16
MAZ6082	D	MAZ8082G	K14	MAZG051	SM	—	—	MAZW100H	SM	MAZW100HG	K16
MAZ6091	D	MAZ8091G	K14	MAZG056	SM	—	—	MAZW120H	SM	MAZW120HG	K16
MAZ6100	D	MAZ8100G	K14	MAZG062	SM	—	—	MAZX200	M	—	—
MAZ6110	D	MAZ8110G	K14	MAZG068	SM	—	—	MAZX220	M	—	—
MAZ6120	D	MAZ8120G	K14	MAZG075	SM	—	—	MAZX240	M	—	—
MAZ6130	D	—	—	MAZG082	SM	—	—	MAZX270	M	—	—
MAZ6150	D	MAZ8150G	K14	MAZG091	SM	—	—	MAZX300	M	—	—
MAZ6180	D	—	—	MAZG100	SM	—	—	MAZX330	M	—	—
MAZ6200	D	MAZ8200G	K15	MAZG120	SM	—	—	MAZY047	SM	—	—
MAZ6220	D	—	—	MAZH062	SD	—	—	MAZY051	SM	—	—
MAZ6240	D	MAZ8240G	K15	MAZH075	SD	—	—	MAZY056	SM	—	—
MAZ6270	D	MAZ8270G	K15	MAZH100	SD	—	—	MAZY062	SM	—	—
MAZ6330	D	MAZ8330G	K15	MAZH120	SD	—	—	MAZY068	SM	—	—
MAZ6360	D	MAZ8360G	K15	MAZH160	SD	—	—	MAZY075	SM	—	—
MAZ6510	D	—	—	MAZJ068H	SM	—	—	MAZY082	SM	—	—
MAZ7051	SM	—	—	MAZJ082D	SM	—	—	MAZY091	SM	—	—
MAZ7056	SM	—	—	MAZJ082H	SM	—	—	MAZY100	SM	—	—
MAZ7062	SM	—	—	MAZJ100D	SM	—	—	MAZY110	SM	—	—
MAZ7068	SM	—	—	MAZJ100E	M	—	—	MAZY120	SM	—	—
MAZ7075	SM	—	—	MAZJ200D	SM	—	—	MAZY130	SM	—	—
MAZ70750B	SM	—	—	MAZK068D	SM	—	—	MAZY150	SM	—	—
MAZ7082	SM	—	—	MAZK068H	SM	—	—	MAZY160	SM	—	—
MAZ7091	SM	—	—	MAZK075D	SM	—	—	MAZY180	SM	—	—
MAZ7100	SM	—	—	MAZK120D	SM	—	—	MAZY200	SM	—	—
MAZ7110	SM	—	—	MAZK270D	SM	—	—	MAZY220	SM	—	—
MAZ7120	SM	—	—	MAZL062D	SM	—	—	MAZY240	SM	—	—
MAZ7130	SM	—	—	MAZL068D	SM	—	—	MAZY270	SM	—	—
MAZ7150	SM	—	—	MAZL075D	SM	—	—	MAZY300	SM	—	—
MAZ7160	SM	—	—	MAZL091D	SM	—	—	MAZY330	SM	—	—
MAZ7180	SM	—	—	MAZL120D	SM	—	—	MAZY360	SM	—	—
MAZ71800B	SM	—	—	MAZL160D	SM	—	—	MAZY390	SM	—	—
MAZ7200	SM	—	—	MAZL270D	SM	—	—	MAZY430	SM	—	—
MAZ72000A	SM	—	—	MAZM062H	SM	MAZM062HG	K16	MAZY470	SM	—	—
MAZ7220	SM	—	—	MAZM068H	SM	MAZM068HG	K16	MAZY510	SM	—	—

Discontinued Types: D Planned Discontinued: SD Maintenance Types: M Planned Maintenance Types: SM

Note) 1. Alternative product is, almost alike in characteristics and function, not same in all respects. Please examine the content when you use.

2. HW and TA products for MT-2, and TW taping products for surface-mounting products are set as Discontinued types.

3. Lead lead-plated products and separated surface-mounting products (including magazine products) are set as Maintenance types.

Maintenance/Discontinued Product List

Part No.		Alternative	Page	Part No.		Alternative	Page	Part No.		Alternative	Page
MN1280	D	MN1382S	L2	PU4163	M	—	—	PUB4119	D	—	—
MN12801	D	MN13821S	L2	PU4164	M	—	—	PUB4119A	D	—	—
MN1281	D	—	—	PU42C26	D	—	—	PUB4120	D	—	—
MN12811	D	—	—	PU4451	M	—	—	PUB4120A	SM	—	—
MN1282	D	—	—	PU4452	M	—	—	PUB4120B	SM	—	—
MN12821	D	—	—	PU4453	M	—	—	PUB4121	SM	—	—
MN1286	D	—	—	PU4454	M	—	—	PUB4122	D	—	—
MN12861	D	—	—	PU4461	M	—	—	PUB4123	SD	—	—
MN12862	D	—	—	PU4462	M	—	—	PUB4124	D	—	—
MN1287	D	—	—	PU4463	M	—	—	PUB4126	D	—	—
MN12871	D	—	—	PU4464	M	—	—	PUB4127	SM	—	—
MN12872	D	—	—	PU61C56	D	—	—	PUB4128	D	—	—
MN128721	D	—	—	PU8432	D	—	—	PUB4131	M	—	—
MN1287C	D	—	—	PU8456	D	—	—	PUB4132	M	—	—
MN1288	D	—	—	PUA3110	SM	—	—	PUB4133	M	—	—
MN1289	D	—	—	PUA3111	SM	—	—	PUB4134	M	—	—
MN1380	D	MN1382S	L2	PUA3112	SM	—	—	PUB4135	D	—	—
MN13801	D	MN13821S	L2	PUA3113	SM	—	—	PUB4135A	SM	—	—
MN13802	D	MN13822S	L2	PUA3114	SM	—	—	PUB4137	SM	—	—
MN1381	M	—	—	PUA3116	SM	—	—	PUB4138	M	—	—
MN13811	M	—	—	PUA3117	SM	—	—	PUB4139	SM	—	—
MN13812	M	—	—	PUA3118	SM	—	—	PUB4140	SM	—	—
MN13821	M	—	—	PUA3119	SM	—	—	PUB4141	M	—	—
MN13822	M	—	—	PUA3120	SM	—	—	PUB4142	M	—	—
MN1382	M	—	—	PUA3121	SM	—	—	PUB4143	M	—	—
MN1383	D	—	—	PUA3122	SM	—	—	PUB4145	D	—	—
MN13831	D	—	—	PUA3123	D	—	—	PUB4146	D	—	—
MN13832	D	—	—	PUA3124	SM	—	—	PUB4171	SM	—	—
MN1383S	D	—	—	PUA3127	SM	—	—	PUB4173	SM	—	—
MTM13120	SM	—	—	PUA3131	M	—	—	PUB4210	D	—	—
MTM13221	SM	—	—	PUA3132	M	—	—	PUB4211	D	—	—
MTM26110	SM	—	—	PUA3133	M	—	—	PUB4212	D	—	—
MTM26123	SM	—	—	PUA3134	M	—	—	PUB4213	D	—	—
MTM86625	SM	—	—	PUA3135	M	—	—	PUB4214	D	—	—
NPOA547	SM	—	—	PUA3136	SM	—	—	PUB4215	SM	—	—
OD503	SM	—	—	PUA3137	SM	—	—	PUB4216	SM	—	—
OD503A	SM	—	—	PUA3138	M	—	—	PUB4219	D	—	—
OF4175	SM	—	—	PUA3141	M	—	—	PUB4220	D	—	—
OF4325	SM	—	—	PUA3142	M	—	—	PUB4220A	D	—	—
PU1102	M	—	—	PUA3143	M	—	—	PUB4301	D	—	—
PU1103	M	—	—	PUA3144	M	—	—	PUB4310	D	—	—
PU1104	M	—	—	PUA3145	M	—	—	PUB4311	D	—	—
PU1105	M	—	—	PUA3146	M	—	—	PUB4314	D	—	—
PU1163	M	—	—	PUA3147	M	—	—	PUB4320	D	—	—
PU1171	M	—	—	PUA3148	M	—	—	PUB4320A	D	—	—
PU1191	M	—	—	PUA3171	SM	—	—	PUB4325	D	—	—
PU1502	M	—	—	PUA3173	SM	—	—	PUB4410	D	—	—
PU1504	M	—	—	PUA3210	SM	—	—	PUB4410A	D	—	—
PU1602	M	—	—	PUA3211	SM	—	—	PUB4411	D	—	—
PU1603	M	—	—	PUA3212	SM	—	—	PUB4411A	D	—	—
PU1604	M	—	—	PUA3213	D	—	—	PUB4412	SM	—	—
PU1620	D	—	—	PUA3214	SM	—	—	PUB4413	SM	—	—
PU3151	M	—	—	PUA3215	D	—	—	PUB4414	D	—	—
PU3152	M	—	—	PUA3216	SM	—	—	PUB4416	SM	—	—
PU3153	M	—	—	PUA3219	D	—	—	PUB4417	D	—	—
PU3154	M	—	—	PUA3220	SM	—	—	PUB4417A	D	—	—
PU3161	M	—	—	PUA3226	SM	—	—	PUB4418	SM	—	—
PU3162	M	—	—	PUA3228	SM	—	—	PUB4419	D	—	—
PU3163	M	—	—	PUA3273	SM	—	—	PUB4420	D	—	—
PU3164	M	—	—	PUB2301	D	—	—	PUB4420A	D	—	—
PU4136	M	—	—	PUB4110	D	—	—	PUB4421	D	—	—
PU4144	D	—	—	PUB4110A	D	—	—	PUB4422	D	—	—
PU4147	D	—	—	PUB4111	D	—	—	PUB4423	D	—	—
PU4148	M	—	—	PUB4112	D	—	—	PUB4424	D	—	—
PU4151	M	—	—	PUB4113	SM	—	—	PUB4431	M	—	—
PU4152	M	—	—	PUB4114	SM	—	—	PUB4432	M	—	—
PU4153	M	—	—	PUB4116	SM	—	—	PUB4433	M	—	—
PU4154	M	—	—	PUB4117	D	—	—	PUB4434	M	—	—
PU4161	M	—	—	PUB4117A	D	—	—	PUB4435	SM	—	—
PU4162	M	—	—	PUB4118	D	—	—	PUB4436	SM	—	—

Discontinued Types: D Planned Discontinued: SD Maintenance Types: M Planned Maintenance Types: SM

Note) 1. Alternative product is, almost alike in characteristics and function, not same in all respects. Please examine the content when you use.

2. HW and TA products for MT-2, and TW taping products for surface-mounting products are set as Discontinued types.

3. Lead lead-plated products and separated surface-mounting products (including magazine products) are set as Maintenance types.



Maintenance/Discontinued Product List

Part No.		Alternative	Page	Part No.		Alternative	Page	Part No.		Alternative	Page
PUB4437	SM	—	—	UN221KT	SM	—	—	UNH1108	SM	—	—
PUB4438	M	—	—	UN221MT	SM	—	—	UNH1110	SD	—	—
PUB4439	SM	—	—	UN2225T	D	—	—	UNH1115	SD	—	—
PUB4440	SM	—	—	UN2226T	SM	—	—	UNH1120	SM	—	—
PUB4441	SM	—	—	UN403	M	—	—	UNH1127	SM	—	—
PUB4442	M	—	—	UN4068	SM	—	—	UNHH200	SD	—	—
PUB4443	M	—	—	UN4111AI	D	—	—	UNHH201	SD	—	—
PUB4444	M	—	—	UN4112AI	SM	—	—	UNHH202	SD	—	—
PUB4445	SM	—	—	UN4113AI	D	—	—	UNHH203	SD	—	—
PUB4446	SM	—	—	UN4211AI	D	—	—	UNHH204	SD	—	—
PUB4447	M	—	—	UN4212AI	D	—	—	UNHH205	SD	—	—
PUB4448	M	—	—	UN4213AI	D	—	—	UNHH206	SD	—	—
PUB4471	SM	—	—	UN4214AI	D	—	—	UNHS200	SM	—	—
PUB4473	SM	—	—	UN431	D	—	—	UNHS201	SM	—	—
PUB4510	D	—	—	UN5101	D	—	—	UNHS202	SM	—	—
PUB4511	SM	—	—	UN5111AI	D	—	—	UNHS203	SM	—	—
PUB4512	SM	—	—	UN5201	D	—	—	UNHS204	SM	—	—
PUB4513	SM	—	—	UN5211AI	D	—	—	UNHS205	SM	—	—
PUB4514	SM	—	—	UNA0101	D	—	—	UNHS206	SM	—	—
PUB4515	SM	—	—	UNA0102	D	—	—	UNHX301	SM	—	—
PUB4516	D	—	—	UNA0205	M	—	—	UNHX302	SM	—	—
PUB4519	SM	—	—	UNA0206	SM	—	—	UNHX303	SM	—	—
PUB4520	D	—	—	UNA0215	D	—	—	UNHX304	SM	—	—
PUB4573	SM	—	—	UNA0216	SM	—	—	UNHX401	M	—	—
PUB4701	D	—	—	UNA0217	SM	—	—	UNHX402	M	—	—
PUB4702	D	—	—	UNA0218	M	—	—	UNHX403	M	—	—
PUB4756	M	—	—	UNA0219	M	—	—	UNHX404	M	—	—
PUB4757	D	—	—	UNA0222	SM	—	—	UNR1110	SD	—	—
PUC4401	D	—	—	UNA0223	M	—	—	UNR1111	SD	—	—
PUC4701	SM	—	—	UNA0224	SM	—	—	UNR1112	SD	—	—
PUC6301	D	—	—	UNA0225	SM	—	—	UNR1113	SD	—	—
PUC6302	D	—	—	UNA0227	SM	—	—	UNR1114	SD	—	—
PUC6303	D	—	—	UNA0228	SM	—	—	UNR1115	SD	—	—
PUC6304	M	—	—	UNA0230	SM	—	—	UNR1116	SD	—	—
SMM4R01	SM	—	—	UNA0231	SM	—	—	UNR1117	SD	—	—
SMM4R02	SM	—	—	UNA0232	SM	—	—	UNR1118	SD	—	—
SMP240W	D	—	—	UNA0233	SM	—	—	UNR1119	SD	—	—
SMP260W	D	—	—	UNA0234	SM	—	—	UNR111D	SD	—	—
SPOA554	SM	—	—	UNA0235	SM	—	—	UNR111E	SD	—	—
TAIY098	SM	—	—	UNA0401	M	—	—	UNR111F	SD	—	—
UN207	D	—	—	UNA0451	M	—	—	UNR111H	SD	—	—
UN208	D	—	—	UNA0501	M	—	—	UNR111L	SD	—	—
UN209	D	—	—	UNA0502	M	—	—	UNR1121	SD	—	—
UN210	D	—	—	UNA0601	D	—	—	UNR1122	SD	—	—
UN2111A	SM	UNR2111	H17	UNA0602	D	—	—	UNR1123	SD	—	—
UN2111AI	D	UNR2111	H17	UNA0603	D	—	—	UNR1124	SD	—	—
UN2111T	SM	—	—	UNA0604	D	—	—	UNR112X	SD	—	—
UN2112A	SM	UNR2112	H17	UNA0801	D	—	—	UNR112Y	SD	—	—
UN2112AI	D	—	—	UNH0002	SM	—	—	UNR1210	SD	—	—
UN2112T	SM	—	—	UNH0003	SM	—	—	UNR1211	SD	—	—
UN2113A	SM	UNR2113	H17	UNH0004	SM	—	—	UNR1212	SD	—	—
UN2113AI	D	UNR2113	H17	UNH0005	SM	—	—	UNR1213	SD	—	—
UN2113T	SM	—	—	UNH0006	SM	—	—	UNR1214	SD	—	—
UN2115T	SM	—	—	UNH0007	D	—	—	UNR1215	SD	—	—
UN2124T	SM	—	—	UNH0008	SM	—	—	UNR1216	SD	—	—
UN2130	SM	—	—	UNH0009	SM	—	—	UNR1217	SD	—	—
UN2154T	SM	—	—	UNH0010	SM	—	—	UNR1218	SD	—	—
UN2210T	SM	—	—	UNH0011	SM	—	—	UNR1219	SD	—	—
UN2211A	SM	UNR2211	H17	UNH0012	D	—	—	UNR121D	SD	—	—
UN2211AI	D	—	—	UNH0013	D	—	—	UNR121E	SD	—	—
UN2211T	SM	—	—	UNH0104	D	—	—	UNR121F	SD	—	—
UN2212A	SM	UNR2212	H17	UNH0106	SD	—	—	UNR121K	SD	—	—
UN2212AI	D	—	—	UNH0108	SD	—	—	UNR121L	SD	—	—
UN2212T	SM	—	—	UNH0110	SD	—	—	UNR1221	SD	—	—
UN2213AI	D	—	—	UNH0115	SD	—	—	UNR1222	SD	—	—
UN2213T	SM	—	—	UNH0120	SD	—	—	UNR1223	SD	—	—
UN2214AI	SM	—	—	UNH0127	SD	—	—	UNR1224	SD	—	—
UN2215T	SM	—	—	UNH1001	SM	—	—	UNR1231	SD	—	—
UN2216T	SM	—	—	UNH1104	D	—	—	UNR1231A	SD	—	—
UN221ET	SM	—	—	UNH1106	SD	—	—	UNR2130X	D	—	—

Discontinued Types: D Planned Discontinued: SD Maintenance Types: M Planned Maintenance Types: SM

Note) 1. Alternative product is, almost alike in characteristics and function, not same in all respects. Please examine the content when you use.

2. HW and TA products for MT-2, and TW taping products for surface-mounting products are set as Discontinued types.

3. Lead lead-plated products and separated surface-mounting products (including magazine products) are set as Maintenance types.

Maintenance/Discontinued Product List

Part No.		Alternative	Page	Part No.		Alternative	Page	Part No.		Alternative	Page
UNR2319	SM	—	—	UNR6217	SM	—	—	UNRL210	SM	—	—
UNR3111	SM	—	—	UNR6218	SM	—	—	UNRL211	SM	—	—
UNR3112	SM	—	—	UNR6219	SM	—	—	UNRL213	SM	—	—
UNR3113	SM	—	—	UNR621D	SM	—	—	UNRL214	SM	—	—
UNR3114	SM	—	—	UNR621E	SM	—	—	UNRL215	SM	—	—
UNR3115	SM	—	—	UNR621F	SM	—	—	UNRL216	SM	—	—
UNR311A	SM	—	—	UNR621K	SM	—	—	UP01110	SM	—	—
UNR311D	SM	—	—	UNR621L	SM	—	—	UP0111F	SM	—	—
UNR311F	SM	—	—	UNR6221	SM	—	—	UP01210	SM	—	—
UNR311T	SM	—	—	UNR6222	SM	—	—	UP01211	SM	—	—
UNR3210	SM	—	—	UNR6223	SM	—	—	UP0121E	SM	—	—
UNR3212	SM	—	—	UNR6224	SM	—	—	UP03311	SM	—	—
UNR3213	SM	—	—	UNR7231	SM	—	—	UP03313	SM	—	—
UNR3214	SM	—	—	UNR8231	SM	—	—	UP0411T	SM	—	—
UNR3215	SM	—	—	UNR8231A	SM	—	—	UP0431T	SM	—	—
UNR3216	SM	—	—	UNR9110	D	UNR9110G	H16	UP04636	SM	—	—
UNR321C	SM	—	—	UNR9111	D	UNR9111G	H16	XN01117	SM	—	—
UNR321D	SM	—	—	UNR9112	D	UNR9112G	H16	XN01118	SM	—	—
UNR321E	SM	—	—	UNR9113	D	UNR9113G	H16	XN0111D	SM	—	—
UNR321F	SM	—	—	UNR9114	D	UNR9114G	H16	XN01201	D	—	—
UNR321L	SM	—	—	UNR9115	D	UNR9115G	H16	XN01217	SM	—	—
UNR321M	SM	—	—	UNR9116	D	UNR9116G	H16	XN0121F	SM	—	—
UNR321N	SM	—	—	UNR9117	D	UNR9117G	H16	XN0121M	SM	—	—
UNR32AB	SM	—	—	UNR9118	D	UNR9118G	H16	XN0121N	SM	—	—
UNR32AC	SM	—	—	UNR9119	D	UNR9119G	H16	XN01457	SM	—	—
UNR32AD	SM	—	—	UNR911A	D	—	—	XN01504	SM	—	—
UNR33MR	SM	—	—	UNR911B	D	—	—	XN01507	SM	—	—
UNR412X	SM	—	—	UNR911D	D	UNR911DG	H16	XN01509	SM	—	—
UNR412Y	SM	—	—	UNR911E	D	UNR911EG	H16	XN01871	SM	—	—
UNR4211A	SM	—	—	UNR911F	D	UNR911FG	H16	XN02210	SM	—	—
UNR4212A	SM	—	—	UNR911H	D	UNR911HG	H16	XN02211	SM	—	—
UNR4213A	SM	—	—	UNR911L	D	UNR911LG	H16	XN02212	SM	—	—
UNR4214A	SM	—	—	UNR911V	D	UNR911VG	H16	XN02215	SM	—	—
UNR421N	SM	—	—	UNR9210	D	UNR9210G	H16	XN02216	SM	—	—
UNR4319	SM	—	—	UNR9211	D	UNR9211G	H16	XN02531	SM	—	—
UNR511A	SM	—	—	UNR9212	D	UNR9212G	H16	XN04110	SM	—	—
UNR511P	SM	—	—	UNR9213	D	UNR9213G	H16	XN0421N	SM	—	—
UNR511S	SM	—	—	UNR9214	D	UNR9214G	H16	XN04313	SM	—	—
UNR5211A	SM	—	—	UNR9215	D	UNR9215G	H16	XN0431L	SM	—	—
UNR5227	SM	—	—	UNR9216	D	UNR9216G	H16	XN04321	SM	—	—
UNR5274	SM	—	—	UNR9217	D	UNR9217G	H16	XN04382	SM	—	—
UNR5274G	SM	—	—	UNR9218	D	UNR9218G	H16	XN04390	SM	—	—
UNR6110	SM	—	—	UNR9219	D	UNR9219G	H16	XN04391	SM	—	—
UNR6111	SM	—	—	UNR921A	D	—	—	XN04407	SM	—	—
UNR6112	SM	—	—	UNR921B	D	—	—	XN04503	SM	—	—
UNR6113	SM	—	—	UNR921D	D	UNR921DG	H16	XN04509	SM	—	—
UNR6114	SM	—	—	UNR921E	D	UNR921EG	H16	XN04683	SM	—	—
UNR6115	SM	—	—	UNR921F	D	—	—	XN05604	SM	—	—
UNR6116	SM	—	—	UNR921K	D	UNR921KG	H16	XN06111	SM	—	—
UNR6117	SM	—	—	UNR921L	D	UNR921LG	H16	XN06112	SM	—	—
UNR6118	SM	—	—	UNR921M	D	UNR921MG	H16	XN06114	SM	—	—
UNR6119	SM	—	—	UNR921N	D	—	—	XN06115	SM	—	—
UNR611D	SM	—	—	UNR921T	D	UNR921TG	H16	XN06116	SM	—	—
UNR611E	SM	—	—	UNRB110	D	—	—	XN0611F	SM	—	—
UNR611F	SM	—	—	UNRB114	SM	—	—	XN0611FH	SM	—	—
UNR611H	SM	—	—	UNRB214	D	—	—	XN06212	SM	—	—
UNR611L	SM	—	—	UNRF1AB	SM	—	—	XN06506	SM	—	—
UNR6121	SM	—	—	UNRF1AC	SM	—	—	XN06542	SM	—	—
UNR6122	SM	—	—	UNRF1AD	SM	—	—	XN06776	SM	—	—
UNR6123	SM	—	—	UNRF1AE	SM	—	—	XN06777	SM	—	—
UNR6124	SM	—	—	UNRF2AA	SM	—	—	XN06877	SM	—	—
UNR612X	SM	—	—	UNRF2AB	SM	—	—	XN07602	M	—	—
UNR612Y	SM	—	—	UNRF2AC	SM	—	—	XN07651	SM	—	—
UNR6210	SM	—	—	UNRF2AD	SM	—	—	XN08081	SM	—	—
UNR6211	SM	—	—	UNRF2AE	SM	—	—	XN09D57	SM	—	—
UNR6212	SM	—	—	UNRL110	SM	—	—	XN09D58	SM	—	—
UNR6213	SM	—	—	UNRL111	SM	—	—	XN09D61	SM	—	—
UNR6214	SM	—	—	UNRL113	SM	—	—	XN0D873	SM	—	—
UNR6215	SM	—	—	UNRL114	SM	—	—	XN0D874	SM	—	—
UNR6216	SM	—	—	UNRL115	SM	—	—	XN0E551	SM	—	—

Discontinued Types: D Planned Discontinued: SD Maintenance Types: M Planned Maintenance Types: SM

Note) 1. Alternative product is, almost alike in characteristics and function, not same in all respects. Please examine the content when you use.

2. HW and TA products for MT-2, and TW taping products for surface-mounting products are set as Discontinued types.

3. Lead lead-plated products and separated surface-mounting products (including magazine products) are set as Maintenance types.



Maintenance/Discontinued Product List

Part No.		Alternative	Page	Part No.		Alternative	Page	Part No.		Alternative	Page
XN0F256	SM	—	—	XP01507	SM	—	—	XP06401T	SM	—	—
XN0F261	SM	—	—	XP01871	SM	—	—	XP06501T	SM	—	—
XN0F262	SM	—	—	XP0187B	SM	—	—	XP06531	SM	—	—
XN0F263	SM	—	—	XP04119	SM	—	—	XP06545	SM	—	—
XN0NE92	SM	—	—	XP0411F	SM	—	—	XP08081	SM	—	—
XN0U201	M	—	—	XP04219	SM	—	—	XP08546	SM	—	—
XN0U210	D	XN01210	H18	XP0421F	SM	—	—	XP0A554	SM	—	—
XN0U401	D	XN01401	H13	XP0438J	SM	—	—	XP0D873	SM	—	—
XN0U604	D	XN04604	H13	XP04601T	SM	—	—	XP0D874	SM	—	—
XN0U608	D	XN04608	H13	XP04683	SM	—	—	XP0D875	SM	—	—
XP0111L	SM	—	—	XP05543	SM	—	—	XP0E554	SM	—	—
XP01201	M	—	—	XP05555	SM	—	—	XP0NG8A	SM	—	—
XP01504	SM	—	—	XP0611FH	SM	—	—				

Discontinued Types: D Planned Discontinued: SD Maintenance Types: M Planned Maintenance Types: SM

Note) 1. Alternative product is, almost alike in characteristics and function, not same in all respects. Please examine the content when you use.

2. HW and TA products for MT-2, and TW taping products for surface-mounting products are set as Discontinued types.

3. Lead lead-plated products and separated surface-mounting products (including magazine products) are set as Maintenance types.

Pub. No.A03005GE

Discrete Semiconductors Selection Guide

October 1, 2008 6th Edition

Issued by

Panasonic Corporation

© Panasonic Corporation 2008

SALES OFFICES

NORTH AMERICA

- **U.S.A. Sales Office:**
Panasonic Industrial Company [PIC]
● **San Diego Office:**
4995 Murphy Canyon Road, Suite 105, San Diego, California 92123, U.S.A.
Tel:1-858-503-2965 Fax:1-858-715-5545
- **New Jersey Office:**
3 Panasonic Way Secaucus, New Jersey 07094, U.S.A.
- **Chicago Office:**
5201 Tollview Road, Rolling Meadows, Illinois 60008, U.S.A.
- **San Jose Office:**
2033 Gateway Place, Suite 200, San Jose, California 95110, U.S.A.
- **Canada Sales Office:**
Panasonic Canada Inc. [PCI]
5770 Ambler Drive 27 Mississauga, Ontario L4W 2T3, Canada
Tel:1-905-238-2315 Fax:1-905-238-4012

LATIN AMERICA

- **Mexico Sales Office:**
Panasonic de Mexico, S.A. de C.V. [PANAMEX]
Amores 1120 Col. Del Valle Delegacion Benito Juarez C.P. 03100 Mexico, D.F. Mexico
Tel:52-5-488-1000 Fax:52-5-488-1073
- **Guadalajara Office:**
Sucursal Guadalajara Av. Lazaro Cardenas 2305 Local G-102 Plaza Comercial Abastos; Col. Las Torres Guadalajara, Jal. 44920, Mexico
Tel:52-3-671-1205 Fax:52-3-671-1256
- **Brazil Sales Office:**
Panasonic do Brasil Ltda. [PANABRAS]
Caixa Postal 1641, Sao Jose dos Campos, Estado de Sao Paulo, Brasil
Tel:55-12-3935-9000 Fax:55-12-3931-3789

EUROPE

- **Europe Sales Office:**
Panasonic Industrial Europe GmbH [PIE]
● **Germany Sales Office:**
Hans-Pinsel-Strasse 2 85540 Haar, Germany
Tel:49-89-46159-119 Fax:49-89-46159-195

ASIA

- **Singapore Sales Office:**
Panasonic Semiconductor Sales Asia [PSCSA]
300 Beach Road, #16-01, the Concourse, Singapore 199555, the Republic of Singapore
Tel:65-6396-8811 Fax:65-6396-8822
- **Malaysia Sales Office:**
Panasonic Industrial Company (M) Sdn. Bhd. [PICM]
● **Head Office:**
15th Floor, Menara IGB, Mid Valley City, Lingkaran Syed Putra, 59200 Kuala Lumpur, Malaysia
Tel:60-3-2297-6888 Fax:60-6-2284-6898
- **Penang Office:**
Suite 20-07, 20th Floor, MWE Plaza,
No.8, Lebuhr Farquhar, 10200 Penang, Malaysia
Tel: 60-4-201-5125 Fax:60-4-261-9989
- **Johor Sales Office:**
Menara Pelangi, Suite8.3A, 8th Floor, No.2, Jalan Kuning, Taman Pelangi, 80400 Johor Bahru, Johor, Malaysia
Tel:60-7-331-3822 Fax:60-7-355-3996

- **Thailand Sales Office:**
Panasonic Industrial (Thailand) Ltd. [PICT]
252-133 Muang Thai-Phatra Complex Building, 31st Floor Rachadaphisek Road, Huaykwang, Bangkok 10320, Thailand
Tel:66-2-693-3400 to 3421 Fax:66-2-693-3422 to 3427
- **Philippines Sales Office:**
Panasonic Industrial Asia PTE. Ltd. (Philippines) [PIAP]
102 Laguna Boulevard, Bo.Don Jose Laguna Technopark, Santa Rosa, Laguna 4026, the Philippines
Tel:63-2-520-3150 Fax:63-2-520-8629
- **China Sales Office:**
Panasonic Semiconductor Sales (China) [PSCSCH]
● **Beijing Sales Office:**
Panasonic Corporation of China
8th Floor, Tower C, Heqiao Buiding, No.8A Guanghua Road, Chaoyang District, Beijing, China, 100026
Tel:86-10-6566-3706 Fax:86-10-6566-3704
- **Tianjin Sales Office:**
Panasonic Industrial (China) Co., Ltd. Tianjin Branch
Room No.1001, Tianjin International Building, 75, Nanjing Road, Heping District, Tianjin, China, 300050
Tel:86-22-2313-9771 to 9774 Fax:86-22-2313-9770
- **Dalian Sales Office:**
Panasonic Corporation of China Dalian Branch
9th Floor Xiwang Tower, No. 136 Zhongshan Road, Zhongshan District, Dalian, China, 116011
Tel:86-411-8370-8805 to 8807 Fax:86-411-8368-6802
- **Panasonic Industrial (China) Co., Ltd. Semiconductor Group**
12th Floor, China Insurance Building, 166 East Road Lujiazui, Pudong New District, Shanghai 200120, China
Tel:86-21-6841-9558 Fax:86-21-6841-9631
- **Panasonic SH Industrial Sales (Shenzhen) Co., Ltd. Semiconductor Group**
Futian Branch: 6th Floor, Excellence Times Square, 4068 Yitian Road, Futian District, Shenzhen 518048, China
Tel:86-755-8255-8888 Fax:86-755-8255-8828
- **Hong Kong Sales Office:**
Panasonic Semiconductor Sales (China) [PSCSCH]
● **Panasonic Shun Hing Industrial Sales (Hong Kong) Co., Ltd. Semiconductor Group**
33rd Floor, Office Tower, Langham Place, 8 Argyle Street, Mongkok, Kowloon, Hong Kong
Tel:852-2529-7322 Fax:852-2865-4455
- **Taiwan Sales Office:**
Panasonic Industrial Sales (Taiwan) Co.,Ltd. [PIST]
● **Head Office:**
12th Floor, No.9, SongGao Rd., Taipei 110, Taiwan
Tel:886-2-2757-1900 Fax:886-2-2757-1906
- **Southern Office:**
Room B, 5th Floor, No.35, Yongda 5th Rd., Yongkang City, Tainan, 710, Taiwan
Tel:886-6-203-2880 Fax:886-6-201-8025
- **Korea Sales Office:**
Panasonic Industrial Korea Co., Ltd. [PIKL]
C Square Building 4th Floor, 61-21, 1ga, Taepyeongno, Jung-gu, Seoul, 100-756, Korea
Tel:82-2-795-9600 Fax:82-2-795-1542

Semiconductor Company, Panasonic Corporation

Nagaokakyo, Kyoto 617-8520, Japan
Tel:075-951-8151

<http://panasonic.net/sc/en>