

SELECTION GUIDE

For detailed information on products referred to in the selection guide but not included as datasheet in this book, please refer to the databook indicated in column "DB"

SGS-THOMSON DATABOOKS

DB		ORDER CODE
a	4 BIT MCU FAMILY ET9400	DBET9400ST/1
b	8 BIT MCU FAMILIES EF6801/04/05	DB68XXST/1
c	16 BIT MPUs & ASSOCIATED PERIPHERALS	DB6800ST/1
d	AUDIO POWER and PROCESSING ICs	DBAUDIOPROST/1
e	AUTOMOTIVE PRODUCTS	DBAMOTIVEST/1
f	ANALOG CELLS AND ARRAYS	DBANACA/1090
g	CB12000 SERIES STANDARD CELLS	DBCB12ST/1
h	CB12000 SERIES STANDARD CELLS MODULE GENERATORS	DBCB12GEN/1
i	CMOS B SERIES	DBCOSBST/1
j	CMOS LINEAR	BKCMOSLIN/0490
k	DATACOM PRODUCTS	DBDATACOMST/1
l	HIGH SPEED CMOS	DBHSCMOSST/1
m	IMAGE PROCESSING	DBIMAGEPROST/1
n	INDUSTRY STANDARD ANALOG ICs	DBSTANDANAST/1
o	ISDN ICs	DBISDNICST/1
p	ISB12000 SERIES CONTINUOUS ARRAYS	DBISB12KST/1
q	SUBSYSTEMS PRODUCT PROFILE	BKSUBST/1
r	ISB18000 SERIES CONTINUOUS ARRAYS	DBISB18/1
s	LINE CARD ICs	DBLINCARDST/1
t	LOW POWER SCHOTTKY TTL ICs	DBLPST/1
u	MACROFUNCTION LIBRARY DATABOOK	DBMACRO/1
v	MODEM	DBMODEMST/1
w	NON-VOLATILE MEMORIES	DBNVMST/1
y	POWER BIPOLAR TRANSISTORS	DBBIPTRANST/1
z	POWER MODULES	DBPOMODULEST/1
aa	POWER MOS DEVICES	DBPOWERMOSST/1
ab	PROTECTION DEVICES	DBPROTECST/1
ac	RF & MICROWAVE POWER TRANSISTORS	DBRFST/1
ad	SMALL SIGNAL TRANSISTORS	DBSMSIGST/1
ae	SCRs & TRIACS	DBSCRTRIST/2
af	STATIC RAMs	DBSRAM/2
ag	ST8 MCU FAMILY	SGST8ST/1
ah	TELEPHONE SET ICs	DBTELSETST/1
ai	THE GRAPHICS DATABOOK	72TRN20400
aj	THE L4970 SWITCHING REGULATOR IC FAMILY	BKL4970FA/0489
ak	THE TRANSPUTER DATABOOK	72TRN20300
al	THE TRANSPUTER DEVELOPMENT AND iq SYSTEMS DATABOOK	72TRN21900
am	THE T9000 TRANSPUTER	DBTRANSPST/1
an	VIDEO PRODUCTS POWER & GRAPHICS	DBPOMGRASST/1
ao	VIDEO PRODUCTS SIGNAL PROCESSING	DBTVCRSPST/1
ap	Z8 MCU FAMILY	BKZ8SELEC/0289
aq	Z80 MICROPROCESSORS FAMILY	DBZ80ST/1
ar	ZENER, SCHOTTKY & RECTIFIER DIODES	DBDIODEST/1
▲	NOT INCLUDED IN CURRENT DATABOOKS, CONTACT YOUR NEAREST SGS-THOMSON SALES OFFICE	

SINGLE CHIP MULTIPOWER

Type Number	Description	Package	Page/DB
L6280	Three Channels Multipower System	PLCC44	517
L6285	Three Channels Multipower System	PLCC44	541
L6286	Three Channels Multipower System	PLCC44	555

SOLENOID DRIVERS

Type Number	Description	Package	Page/DB
ESM1600B	Quad Comparator Interface Circuit	DIP14/SO16	29
ESM1602B	Quad Comparator Interface Circuit	DIP14/SO16	37
L294	Switch-Mode Solenoid Driver	MULTIWATT11	115
L295	Dual Switch Mode Solenoid Driver	MULTIWATT15	121
L601/2/3/4	Darlington Array	DIP18	171
L702	2A Quad Darlington Switch	MULTIWATT11/8+8	175
L6114/15	Quad 100V DMOS Switch	MULTIWATT15/14+3+3	357
L6122/23	100V DMOS Switch	MULTIWATT15/14+3+3	365
L6213	Solenoid Driver + SMPS	16+2+2	399
L6220/N	Quad Darlington Switch	MULTIWATT15/16+2+2	415
L6221A/N	Quad Darlington Switch	MULTIWATT15/16+2+2	425
L6221N/CN	Quad Darlington Switches	MULTIWATT15	437
L6504	Solenoid Controller	DIP14	569
TDE1707	Intelligent Power Switch	SO8	681
TDE/TDF1737	Intelligent Power Switch	MINIDIP/SO14	685
TDE1747	Intelligent Power Switch	SO14	689
TDE1767/87A	Intelligent Power Switch	MINIDIP	697
TDE1798	Intelligent Power Switch	MINIDIP	705
TDE3237	Intelligent Power Switch	MINIDIP/SO14	717
TDF1778	Dual 2A Source Driver	MULTIWATT11	721
TDF1779A	Dual 2A Source Driver	MULTIWATT11	729
ULN2001A to 2004A	Seven Darlington Arrays	DIP16/SO16	797
ULN2064B to 2076B	Quad Darlington Switches	12+2+2	801
ULN2065B to 2077B	Quad Darlington Switches	12+2+2	809
ULN2801A to 2805A	Eight Darlington Arrays	DIP18	817
ULQ2001A to 2004A	Seven Darlington Arrays	DIP16/SO16	823
ULQ2801A to 2805A	Seven Darlington Arrays	DIP18	827

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DC MOTOR DRIVERS

Type Number	Description	Package	Page/DB
L149	4A Linear Driver	PENTAWATT	45
L165	3A Power Operational Amplifier	PENTAWATT	49
L272/M	Dual Power Operational Amplifier	MINIDIP/8+8	67
L272D	Dual Power Operational Amplifier	SO16	73
L290	Tachometer Converter	DIP16	77
L291	5 Bit D/A Converter and Position Amplifier	DIP16	83
L292	Switch-Mode Driver for DC Motors	MULTIWATT15	89
L293B/E	Push-Pull Four Channel Drivers	DIP16/16+2+2	99
L293C	Push-Pull Four Channel	16+2+2	107
L293D	Push-Pull Four Channel Driver with Diodes	12+2+2	111
L298N	Dual Full Bridge Driver	MULTIWATT15	161
L2720/2/4	Low Drop Dual Power Operational Amplifier	MINIDIP/8+8/SIP9	179
L2726	Low Drop Dual Power Operational Amplifier	SO20	187
L2750	Dual Low Drop High-Power Amplifier	MULTIWATT11	191
L6201/2/3	DMOS Full Bridge Drivers	SO20/12+3+3 MULTIWATT11	371
L6204	DMOS Dual Full Bridge Drivers	16+2+2	387
L6242	Voice Coil Motor Driver	SO20	503
L6243/D	Voice Coil Motor Driver	PLCC44/SO28	507
L6515	Dual DC Motor Positioning System	PLCC44	583

UNIPOLAR STEPPER MOTOR DRIVERS

Type Number	Description	Package	Page/DB
L297/A	Stepper Motor Controllers	DIP20	151
L702	2A Quad Darlington Switch	MULTIWATT11/8+8	175
L6122/23	100V DMOS Switches	MULTIWATT15/14+3+3	365
L6506/D	Current Controller For Stepping Motors	DIP18/SO20	577
ULN2064B to 2076B	Quad Darlington Switch	12+2+2	801
ULN2065B to 2077B	Quad Darlington Switch	12+2+2	809

BIPOLAR STEPPER MOTOR DRIVERS

Type Number	Description	Packages	Page/D/B
L297/A	Stepper Motor Controller	DIP20	151
L298N	Dual Full Bridge Driver	MULTIWATT15	161
L6201/2/3	0.3 Ω DMOS Full Bridge Driver	MULTIWATT11/ SO20/14+3+3	371
L6204	Voice Coil Motor Driver	16+2+2	387
L6210	Dual Schottky Diode Bridge	12+2+2	395
L6219	Stepper Motor Driver	20+2+2	407
L6506/D	Current Controller For Stepping Motors	DIP18/SO20	577
MC379C	Motor Driver	12+2+2	635
PBL3717A	Stepper Motor Driver	12+2+2	643
TEA3717	Stepper Motor Driver	12+2+2	737
TEA3718/S	Motor Driver	MULTIWATT15/12+2+2	745
TEF3718S	Stepper Motor Driver	MULTIWATT15/12+2+2	757

BRUSHLESS MOTOR CONTROLLERS

Type Number	Description	Packages	Page/DB
L6232A	Spindle Motor Driver	PLCC44	481
L6232B	Spindle Motor Driver	PLCC28	489
L6234	Three Phase Motor Driver	POWERDIP 16+2+2/ SO 16+2+2/ FLEXIWATT21	497

SWITCHING REGULATORS

Type Number	Description	Packages	Page/DB
L296/P	High Current Switching Regulator	MULTIWATT15	127
L4960	2.5A Power Switching Regulator	HEPTAWATT	199
L4962	1.5A Power Switching Regulator	12+2+2	213
L4963/D	1.5A Switching Regulator	SO16/12+2+2	225
L4964	High Current Switching Regulator	MULTIWATT15	239
L4970A	High Current Switching Regulator	MULTIWATT15	251
L4972A	2.0A Switching Regulator	SO20/16+2+2	271
L4974	3.5A Switching Regulator	POWERDIP 16+2+2	291
L4975A	5A Switching Regulator	MULTIWATT15	311
L4977A	7A Switching Regulator	MULTIWATT15	331
SG1524	Regulating Pulse Width Modulator	DIP16/SO16	653
SG1525A	Regulating Pulse Width Modulator	DIP16/SO16	661
UC2842/45	Current Mode PWM Controller	MINIDIP/SO14	781
UC3842/45	Current Mode PWM Controller	MINIDIP/SO14	781

SPECIAL FUNCTIONS

Type Number	Description	Packages	Page/DB
ESM1600B	Quad Comparator Interface Circuit	DIP14/SO14	29
ESM1602B	Quad Comparator Interface Circuit	DIP14/SO14	37
L149	4A Linear Driver	POWERDIP	45
L200	Adjustable Voltage And Current Regulator	POWERDIP/TO3 (4L)	57
L5170A/D	Octal Line Driver	DIP28/PLCC28	351
L6210	Dual Schottky Diode Bridge	12+2+2	395
L6213	Solenoid Driver + SMPS	16+2+2	399
L6242	Voice Coil Motor Driver	SO20	503
L6603A/4A	Memory Card Interface	DIP28/PLCC28	613
L6605	Smart Card Interface	12+3+3	603
L6720/21	Minitel Interface	12+2+2	611
MC1488	RS232C Quad Line Driver	CERDIP14/DIP14	619
MC1489/A	RS2S2C Quad Line Receiver	CERDIP14/DIP14	627
TDA0161	Proximity Detector	MINIDIP/SO8	671
TDE0160	Proximity Detector	MINIDIP/SO14	675
TL7700A	Supply Voltage Supervisors	MINIDIP/SO8	763
UAA4713	Motion Detector Interface	DIP14/SO14	769

SUBSYSTEMS MODULES

DC-CD CONVERTERS FOR GENERAL PURPOSE APPLICATIONS

Single Output Type	Output Power (W)	Input Voltage Range (VDC)	Output Volt/mA	Dimensions L · W · H (mm)	Package	Page/DB
GS-115-5*	1	4.50 ÷ 5.50	5 / 250	35.6 · 21.6 · 14	B	q
GS-1112-5*	1	10.8 ÷ 13.2	5 / 150	33 · 33 · 16.5	C	▲
GS-215-5*	2	4.50 ÷ 5.50	5 / 400	35.6 · 21.6 · 14	B	▲
GS-215-12*	2	4.50 ÷ 5.50	12 / 200	35.6 · 21.6 · 14	B	q
GS-2112-12LR*	2	10.8 ÷ 13.2	12 / 150	50.8 · 25.4 · 12	D2	▲
GS-2148-28*	2	38 ÷ 60	28 / 60	33 · 33 · 16.5	C	q
GS-315-3.3*	3	4.75 ÷ 5.25	3.3 / 750	33 · 33 · 16.5	C	q
GS-4112-12*	4	10 ÷ 14	12 / 350	35.6 · 21.4 · 14	B	▲
GS-615-12*	6	4.65 ÷ 5.35	12 / 510	50.8 · 50.8 · 14.7	G1	▲
GS-2115-12*	21	4.75 ÷ 5.25	12 / 1800	85.5 · 67 · 21.3	H2	▲
GS-25124-5*	25	18 ÷ 36	5 / 5000	116 · 65 · 21.1	F1	▲
GS-30124-12**	30	18 ÷ 36	12 / 2500	116 · 65 · 21.1	F1	▲
GS-30124-15**	30	18 ÷ 36	15 / 2000	116 · 65 · 21.1	F1	▲

* Common feature: short-circuit protection.

** Common features: short-circuit protection, output overvoltage protection, remote sense compensation, sixsided continuous shield, redundant operation.

SUBSYSTEMS MODULES (Cont'd)

DC-CD CONVERTERS FOR GENERAL PURPOSE APPLICATIONS (Cont'd)

Dual Output Type	Output Power (W)	Input Voltage Range (VDC)	Output Volt / mA	Dimensions L · W · H (mm)	Package	Page/DB
GS-2I5-D5*	2	4.75 ÷ 5.25	± 5 / ± 200	50.8 · 25.4 · 12	D	q
GS-2I5-D12*	2	4.75 ÷ 5.25	± 12 / ± 100	50.8 · 25.4 · 12	D1	q
GS-3I1I0-D1524*	31	8.98 ÷ 13.00	15 / 2000 24/40	116 · 65 · 21.1	F2	q
Triple Output Type	Output Power (W)	Input Voltage Range (VDC)	Output Volt / mA	Dimensions L · W · H (mm)	Package	Page/DB
GS-1I5-5D15*	2	4.70 ÷ 5.30	+ 5 / + 20 ± 15 / ± 15	33 · 33 · 16.5	C2	q
GS-2I5-5D15*	2	4.70 ÷ 5.30	+ 5 / + 50 ± 15 / ± 70	33 · 33 · 16.5	C2	q
GS-5I24-5D15*	5	17.5 ÷ 30.00	+ 5 / + 250 ± 15 / ± 125	50.8 · 38.1 · 19	E	q

* Common feature: short-circuit protection.

** Common features: short-circuit protection, output overvoltage protection, remote sense compensation, six-sided continuous shield, redundant operation.

DC-DC CONVERTERS FOR ECL APPLICATIONS (-5.2V Output)

Single Output Type	Output Power (W)	Input Voltage Range (VDC)	Output Volt/mA	Dimensions L · W · H (mm)	Package	Page/DB
GS-3I5-5.2*	3	4.75 ÷ 5.25	- 5.2 / 600	33 · 33 · 16.5	C	q
GS-15I5-5.2*	15	4.65 ÷ 5.35	- 5.2 / 3000	50.8 · 50.8 · 14.7	G1	▲

* Common feature: short-circuit protection.

DC-DC CONVERTERS FOR LAN APPLICATIONS (-9V Output)

Single Output Type	Output Power (W)	Input Voltage Range (VDC)	Output Volt/mA	Dimensions L · W · H (mm)	Package	Page/DB
GS-2I12-9*	2	11.28 ÷ 15.75	- 9 / 250	33 · 33 · 12.7	A	q
GS-2I12-9A*	2	9.50 ÷ 15.75	- 9 / 250	35.6 · 21.6 · 14	B	q
GS-2I5-9*	2	4.50 ÷ 5.50	- 9 / 250	35.6 · 21.6 · 14	B	q
GS-2IX-9*	2	4.50 ÷ 15.75	- 9 / 250	35.6 · 21.6 · 14	B	q

* Common feature: short circuit protection.

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DC-DC CONVERTERS FOR -48V_{DC} INPUT VOLTAGES BUS

Single Output Type	Output Power (W)	Input Voltage Range (VDC)	Output Volt/mA	Dimensions L · W · H (mm)	Package	Page/DB
GS-2I48-28*	2	38 ÷ 60	28 / 0.060	33 · 33 · 16.5	C	q
GS-4I48-5*	4	38 ÷ 60	5 / 0.8	33 · 33 · 16.5	C	q
GS-4I48-12*	4	38 ÷ 60	12 / 0.3	33 · 33 · 16.5	C	q
GS-5I48-5*	5	38 ÷ 60	5 / 1	50.8 · 50.8 · 14.7	G1	q
GS-5I48-12*	5	38 ÷ 60	12 / 0.42	33 · 33 · 16.5	C	▲
GS-5I48-15*	5	38 ÷ 60	15 / 0.33	33 · 33 · 16.5	C	q
GS-15I48-5*	15	38 ÷ 68	5 / 3	50.8 · 50.8 · 14.7	G1	▲
GS-20I48-5S*	20	36 ÷ 72	5 / 4	101.6 · 50.8 · 16	R2	▲
GS-T25-0500**	25	36 ÷ 72	5 / 5	116 · 65 · 21.1	F1	1029
GS-T27-0600**	27	36 ÷ 72	6 / 4.5	116 · 65 · 21.1	F1	1029
GS-T30-1200**	30	36 ÷ 72	12 / 2.5	116 · 65 · 21.1	F1	1029
GS-T30-1500**	30	36 ÷ 72	15 / 2	116 · 65 · 21.1	F1	1029
GS-T150-05/1***	150	38 ÷ 60	5 / 30	125 · 66.5 · 19	T	1037
GS-T150-05/2***	150	38 ÷ 60	5 / 30	125 · 66.5 · 34	T1	1037
GS-T300-05/1***	300	38 ÷ 60	5 / 60	135 · 85 · 21	V	▲
GS-T300-05/2***	300	38 ÷ 60	5 / 60	135 · 85 · 34	V1	▲
Dual Output Type	Output Power (W)	Input Voltage Range (VDC)	Output Volt/mA	Dimensions L · W · H (mm)	Package	Page/DB
GS-2I48-D5*	2	38 ÷ 60	+ 5 / + 0.2 - 5 / - 0.1	33 · 33 · 16.5	C2	▲
GS-2I48-D12*	2	38 ÷ 60	± 12 / ± 0.1A	50.8 · 38.1 · 19	E1	q

* Common features: short circuit protection.

** Common feature: short circuit protection, output overvoltage protection, remote sense compensation, sixsided continuous shield, redundant operation.

***Common features: short-circuit protection, output overvoltage protection, remote sense compensation, synchronization output, parallel operation with equal current sharing.

DC-DC CONVERTERS FOR ISDN APPLICATIONS

NT EQUIPMENT

Dual Output Type	Output Power (W)	Input Voltage Range (VDC)	Output Volt/mA	Dimensions L · W · H (mm)	Package	Page/DB
GS-1I48-D540*	1	24 ÷ 70	5 / 80 40/12.5	60 · 35 · 20	S	q
GS-1I70-D540**	15	30 ÷ 115	5 / 90 40/10.5	50.8 · 50.8 · 16.5	G2	▲

*Common features: short-circuit protection.

**According to CCITT I.430 recommendation.

SWITCHING VOLTAGE REGULATORS

Type Number	Description	Dimensions L · W · H (mm)	Package	Page/DB
GS-M51212	Five Output Voltages: 5V/2A, $\pm 12V/0.125A$, $\pm 12V/0.125A$	101.6 · 50.8 · 16.5	Open Frame	q
GS-R1005**	5V/10A Fixed Output; $V_i = 12$ to 36 V	101.6 · 50.8 · 16	R	1111
GS-R1012**	12V/10A Fixed Output; $V_i = 18$ to 36 V	101.6 · 50.8 · 16	R	▲
GS-R400V*	5.1 to 40V/4A Adjustable Output Voltage; V_i up to 46 V	85.5 · 67 · 21.3	H	1001
GS-R400VB*	5.1V to 40V/Up to 4A Adjustable Output Voltage and Current; Syncro Module; V_i up to 46V	85.5 · 67 · 21.3	H	1001
GS-R405*	5.1V/4A Fixed Output; $V_i = 9$ to 46V	85.5 · 67 · 21.3	H	1001
GS-R405S*	5.1V/4A Fixed Output; $V_i = 9$ to 46 V;	85.5 · 67 · 21.3	H	1001
GS-R412*	12V/4A Fixed Output; $V_i = 16$ to 46V;	85.5 · 67 · 21.3	H	1001
GS-R415*	15V/4A Fixed Output; $V_i = 19$ to 46V	85.5 · 67 · 21.3	H	1001
GS-R424*	24V/4A Fixed Output; $V_i = 28$ to 46V	85.5 · 67 · 21.3	H	1001
GS-R400V/2	5.1 to 40V/2A Adjustable Output Voltage; Small Size		G	1007
GS-R405/2*	5V/4A Fixed Output; Small Size	50.8 · 50.8 · 14.7	G	1007
GS-R412/2*	12V/3A Fixed Output; Small Size	50.8 · 50.8 · 14.7	G	1007
GS-R415/2*	15V/3A Fixed Output; Small Size	50.8 · 50.8 · 14.7	G	1007
GS-R424/2*	24V/2A Fixed Output; Small Size	50.8 · 50.8 · 14.7	G	1007
GS-R4840N	-40V/-1A Negative Output	85.5 · 67 · 21.3	H3	▲
GS-R51212*	Triple Output Voltage; +5V/3.5A; $\pm 12V/0.1A$ (Auxiliary Isolated Outputs) Reset Output	85.5 · 67 · 21.3	H1	1017
GS-R51212S	Triple Output Voltage; +5V/4.5A; $\pm 12V/0.35A$ (Auxiliary Isolated And Externally Adjustable Outputs); Reset Output	101.6 · 50.8 · 16	R1	1021
GS-R51515S	Triple Output Voltage; +5V/4.5A; $\pm 15V/0.3A$ (Auxiliary Isolated And Externally Adjustable Outputs); Reset Output	101.6 · 50.8 · 16	R1	1021

*Common features: short-circuit protection, soft start, thermal protection, crowbar protection for the load, common input-output ground.

**Common features: short-circuit protection, softstart, remote load voltage sense, remote inhibit/enable synchronization output, parallel operation with equal current sharing, common input-output ground.

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POWER CONTROLLER & MOTOR DRIVER MODULES

Type Number	Description	Dimensions L · W · H (mm)	Package	Page/DB
GS-D050	0.5A Chopped Bipolar Stepper Motor Driver	50.8 · 50.8 · 13.5	GD	905
GS-D200	2.0A Chopped Bipolar Stepper Motor Driver	85.5 · 67 · 21.3	HD	921
GS-D200S	2.5 A Chopped Bipolar Stepper Motor Driver	85.5 · 67 · 21.3	HD	921
GS-D200M	2.5 A Microstep Driver	85.5 · 67 · 21.3	HM	937
GS-C200	Programmable Intelligent Stepper Motor Controller With 25 Different Commands	85.5 · 67.5 · 22	L	865
GS-C200S	Programmable Intelligent Stepper Motor Controller With 29 Different Commands	85.5 · 67.5 · 22	L	865

POWER CONTROLLER AND MOTOR DRIVER BOARDS

Type Number	Description	Dimensions L · W · H (mm)	Package	Page/DB
GS-D250M	2.5 A Microstep Motor Driver	160 · 100 · 28	M	951
GS-D350M	5.6 A Microstep Motor Driver	160 · 100 · 48	N	959
GS-D500	70V/5A Step and Microstep Motor Driver Board	213 · 119 · 53	Q	971
GS-D550	5.6 A Chopped 2 And 5 Phases Stepper Motor Driver	160 · 100 · 48	N	981
GS-DC200	Board With a GS-C200 Controller and a GS-D200 Driver	160 · 100 · 24	O	993
GS-DC200S	Board With A GS-C200 Controller and a GS-D200S Driver	160 · 100 · 24	O	993
GS-DC200SS	Board With a GS-C200S Controller and a GS-D200S Driver	160 · 100 · 24	O	993

PROTECTION CONNECTOR

Type Number	Description	Dimensions L · W · H (mm)	Package	Page/DB
GS-P8-A	Bidirectional Data Line Protector (American Version With Female Screws 4.40 UNC)	56 · 17.5 · 25.4	P	▲
GS-P8-E	Bidirectional Data Line Protector (European Version With Female Screws M3)	56 · 17.5 · 25.4	P	▲

SERIAL ACCESS EEPROM MEMORIES

Serial access EEPROMs guarantee 1,000,000 Erase/Write cycle endurance.

With SGS-THOMSON major advantage in EEPROM, 1,000,000 Erase/Write cycle endurance, combined with 2.5V low voltage operation and memory protect features, the EEPROM has become the memory for reference data storage in many kinds of equipment. They are ideally suited for printers, telephone sets and all equipment requiring non-volatile set-up or temporary data storage.

SGS-THOMSON's EEPROMs are suitable for use with I²C and MICROWIRE[®] serial bus interfaces.

I²C Serial Bus EEPROM Range

Size	Part Number	Organisation	Vcc Range	Feature	Package	Page/DB
1k bit	ST24C01BX	128 x 8	4.5 to 5.5V		PDIP8	w, af
	ST24C01MX	128 x 8	4.5 to 5.5V		PSO8	w, af
	ST25C01BX	128 x 8	2.5 to 5.5V	Low Voltage	PDIP8	w, af
	ST25C01MX	128 x 8	2.5 to 5.5V	Low Voltage	PSO8	w, af
2k bit	ST24C02ABX	256 x 8	4.5 to 5.5V		PDIP8	w, af
	ST24C02AMX	256 x 8	4.5 to 5.5V		PSO8	w, af
	ST25C02ABX	256 x 8	2.5 to 5.5V	Low Voltage	PDIP8	w, af
	ST25C02AMX	256 x 8	2.5 to 5.5V	Low Voltage	PSO8	w, af
4k bit	ST24C04BX	512 x 8	4.5 to 5.5V	Write Protect	PDIP8	w, af
	ST24C04MX	512 x 8	4.5 to 5.5V	Write Protect	PSO8	w, af
	ST24C04MLX	512 x 8	4.5 to 5.5V	Write Protect	PSO14	w, af
	ST25C04BX	512 x 8	2.5 to 5.5V	Write Protect	PDIP8	w, af
	ST25C04MX	512 x 8	2.5 to 5.5V	Write Protect	PSO8	w, af
8k bit	ST24C08BX	1k x 8	4.5 to 5.5V	Write Protect	PDIP8	w, af
	ST25C08BX	1k x 8	2.5 to 5.5V	Write Protect	PDIP8	w, af
16k bit	ST24C16BX	2k x 8	4.5 to 5.5V	Write Protect	PDIP8	w, af

Note: In the Part Number X means three temperature ranges: 1 = 0 to 70 °C, 6 = -40 to 85 °C, 3 = -40 to 125 °C.

MICROWIRE Serial Bus EEPROM Range

Size	Part Number	Organisation	Vcc Range	Feature	Package	Page/DB
256 bit	ST93C06BX	32x8 or 16x16	4.5 to 5.5V	Dual Organisation	PDIP8	w, af
	ST93C06MX	32x8 or 16x16	4.5 to 5.5V	Dual Organisation	PSO8	w, af
1k bit	ST93C46ABX	128x8 or 64x16	4.5 to 5.5V	Dual Organisation	PDIP8	w, af
	ST93C46AMX	128x8 or 64x16	4.5 to 5.5V	Dual Organisation	PSO8	w, af
	ST93C46TMX	128x8 or 64x16	4.5 to 5.5V	90° Turn Pin Out	PSO8	w, af
	ST93CS46BX	64 x 16	4.5 to 5.5V	Write Protect	PDIP8	w, af
	ST93CS46MX	64 x 16	4.5 to 5.5V	Write Protect	PSO8	w, af
	ST93CS46MLX	64 x 16	4.5 to 5.5V	Write Protect	PSO14	w, af
	ST93CS47BX	64 x 16	2.5 to 5.5V	Low Voltage	PDIP8	w, af
	ST93CS47MX	64 x 16	2.5 to 5.5V	Low Voltage	PSO8	w, af
	ST93CS47MLX	64 x 16	2.5 to 5.5V	Low Voltage	PSO14	w, af
	2k bit	ST93C56BX	128x8 or 256x16	4.5 to 5.5V	Dual Organisation	PDIP8
ST93C56MLX		128x8 or 256x16	4.5 to 5.5V	Dual Organisation	PSO14	w, af
ST93CS56BX		128 x 16	4.5 to 5.5V	Write Protect	PDIP8	w, af
ST93CS56MX		128 x 16	4.5 to 5.5V	Write Protect	PSO8	w, af
ST93CS56MLX		128 x 16	4.5 to 5.5V	Write Protect	PSO14	w, af
ST93CS57BX		128 x 16	2.5 to 5.5V	Low Voltage	PDIP8	w, af
ST93CS57MX		128 x 16	2.5 to 5.5V	Low Voltage	PSO8	w, af
ST93CS57MLX		128 x 16	2.5 to 5.5V	Low Voltage	PSO14	w, af
4k bit	ST93C66BX	256x16 or 512x8	4.5 to 5.5V	Dual Organisation	PDIP8	w, af
	ST93C66MLX	256x16 or 512x8	4.5 to 5.5V	Dual Organisation	PSO14	w, af
	ST93CS66BX	256 x 16	4.5 to 5.5V	Write Protect	PDIP8	w, af
	ST93CS67BX	256 x 16	2.5 to 5.5V	Low Voltage	PDIP8	w, af

Note: In the Part Number X means three temperature ranges: 1 = 0 to 70 °C, 6 = -40 to 85 °C, 3 = -40 to 125 °C.

SELECTION GUIDE

EPROM - ROM - FLASH MEMORIES

EPROMs are manufactured in two types, UV erasable and OTP (One Time Programmable). Three process technologies are used, NMOS 1.5 micron and CMOS 1.2 and 0.8 micron.

EPROM sizes range from 16k bits up to 4 Megabits, with a 16 Megabit device, in 0.6 micron process technology, in development.

ROMs are manufactured in a high speed CMOS process technology and feature 100ns access time. Sizes range up to 1 Megabit.

FLASH products are being introduced in a range that will extend initially up to 4 Megabit.

CMOS UV EPROM

Size	Part Number	Organisation	Speed (ns)						Feature	Page/DB
			80	100	120	150	200	250		
64k bit	TS27C64A	8k x 8					■	■		w, af
256k bit	M27C256B	32k x 8			■	■	■	■		w, af
512k bit	M27C512	64k x 8	New	New	■	■	■	■	x16 Organisation	w, af
	M27C516	32k x 16			■	■	■	■		w, af
1M bit	M27C1000	128k x 8	New	■	■	■	■	■	ROM Compatible	w, af
	M27C1001	128k x 8	New	■	■	■	■	■		w, af
	M27C1024	64k x 16			■	■	■	■		x16 Organisation
2M bit	M27C2001	256k x 8	New	■	■	■	■	■		w, af
4M bit	M27C4001	512k x 8	■	■	■	■	■	■	High Speed	w, af
	M27C4002	256k x 16	New	■	■	■	■	■	High Speed, x16	w, af

Notes:

- = V_{CC} range \pm 5%
- = V_{CC} range \pm 10%

For information on new products, contact local Sales Office.

NMOS UV EPROM

Size	Part Number	Organisation	Speed (ns)						Feature	Page/DB
			170	200	250	300	350	450		
16k bit	M2716	2k x 8					■	■		w, af
32k bit	M2732	4k x 8					■	■		w, af
64k bit	M2764A	8k x 8		■	■	■				w, af
128k bit	M27128A	16k x 8		■	■	■				w, af
256k bit	M27256	32k x 8	■	■	■	■				w, af
512k bit	M27512	64k x 8		■	■	■				w, af

Notes:

- = V_{CC} range \pm 5%
- = V_{CC} range \pm 10%

OTP ROM

Size	Part Number	Organisation	Speed (ns)					Package			Page/DB	
			100	120	150	200	250	300	PDIP	PLCC		PSO
NMOS												
64k bit	ST2764A	8k x 8					■	■	●			w, af
128k bit	ST27128A	16k x 8					■	■	●			w, af
256k bit	ST27256	32k x 8					■	■	●			w, af
CMOS												
256k bit	M27C256B	32k x 8			■	■			●	●	New	w, af
512k bit	M27C512	64k x 8							●	●	New	w, af
	M27C516	32k x 16			■	●				●		w, af
1M bit	M27C1001	128k x 8			■	■			New	New		w, af
	M27C1024	64k x 16			■	■			New	New		w, af
4M bit	M27C4002	256k x 16	■			■				New		w, af

Notes:

- = Available
- = V_{CC} range ± 5%
- = V_{CC} range ± 10%

For information on new products, contact local Sales Office.

MASK ROM

Size	Part Number	Organisation	Speed	Package		Page/DB
				PDIP		
512k bit	M23C512	64k x 8	100ns	●		w, af
1M bit	M23C1000	128k x 8	100ns	●		w, af
	M23C1001	128k x 8	100ns	●		w, af

Note: Mask program ROMs require the memory content to be provided with the purchase contract. A mask charge applies, also a minimum quantity purchase.

FLASH

Size	Part Number	Organisation	Speed	Package				Page/DB
				PDIP	PLCC	PSO	PSSO	
256k bit	M28F256	32k x 8	100-150ns	●	●	New		w, af
512k bit	M28F512	64k x 8	100-150ns	New	New	New	New	w, af
1M bit	M28F1001	128k x 8	100-150ns	New	New	New	New	w, af
	M28F1024	64k x 16	100-150ns		New			w, af

For information on new products, contact local Sales Office.

SELECTION GUIDE

STATIC RAM

Static RAM products cover three ranges. They are manufactured in advanced CMOS process technologies down to 0.7 micron.

The Fast SRAM range is suitable for high speed computer applications, for example data cache memory.

The Specialty SRAM range consists of two families, cache TAGRAM™ for implementing fast computer cache memory systems and fast BiPORT™ FIFOs for inter-device communication.

The Non-Volatile RAM range, ZEROPOWER™ and TIMEKEEPER™, are specially designed SRAM devices with very low standby power consumption. They implement on one chip an SRAM together with a power supply voltage detector and switch. They are packaged in plastic dual-in-line packages with a "top-hat" which carries a lithium back-up battery. The TIMEKEEPER chip also integrates a very low power consumption oscillator and clock, the "top-hat" includes both a battery and a crystal.

FAST SRAM

Size	Part Number	Speed (ns)	Organisation	Feature	Package
4k bit	IMS1203*	25, 35, 45	4k x 1	Separate I/O	PSDIP18
	IMS1223*	25, 35, 45	1k x 4	Common I/O	PSDIP18
16k bit	IMS1403*	25, 35, 45	16k x 1	Separate I/O	PSDIP20
	IMS1423*	25, 35, 45	4k x 4	Common I/O	PSDIP20
64k bit	IMS1600*	25, 35, 45	64k x 1	Separate I/O	PSDIP22
	M621064	10, 12, 15	64k x 1	Separate I/O	PSOJ24
	IMS1620*	25, 35, 45	16k x 4	Common I/O	PSDIP22, PSOJ24
	IMS1624*	25, 35, 45	16k x 4	Output Enable	PSDIP24, PSOJ24
	IMS1625*	20, 25	16k x 4	Common I/O	PSDIP22
	M624016	10, 12, 15	16k x 4	Common I/O	PSOJ24
	IMS1629*	20, 25	16k x 4	Output Enable	PSDIP24
	IMS1635*	20, 25, 35	8k x 8	Common I/O	PSDIP28
256k bit	M628008	10, 12, 15	8k x 8	Output Enable	PSOJ28
	IMS1800*	25, 35, 45	256k x 1	Separate I/O	PSDIP24, PSOJ24
	M621256	12, 15, 20	256k x 1	Separate I/O	PSDIP24, PSOJ24
	IMS1820*	25, 35, 45	64k x 4	Common I/O	PSDIP24, PSOJ24
	IMS1824*	25, 35, 45	64k x 4	Output Enable	PSOJ28
	M624064	12, 15, 20	64k x 4	Common I/O	PSDIP24, PSOJ24
	M624065	12, 15, 20	64k x 4	Output Enable	PSDIP28, PSOJ28
	IMS1830	25, 35, 45	32k x 8	Output Enable	PSDIP28
	M628032	12, 15, 20	32k x 8	Output Enable	PSDIP28, PSOJ28
	M629032	10, 12, 15	32k x 9	Output Enable	PSOJ32
1M bit	M621100	17, 20, 25	1M x 1	Separate I/O	PSOJ28
	M624256	17, 20, 25	256k x 4	Common I/O	PSOJ28
	M624257	17, 20, 25	256k x 4	Output Enable	PSOJ28
	M628128	17, 20, 25	128k x 8	Output Enable	PSDIP32, PSOJ32
	M629128	17, 20, 25	128k x 9	Output Enable	PSOJ32

Note: * Not for new designs

BiPORT FIFO

Organisation	Part Number	Speed (ns)	Feature	Package
1k x 5 bit	MK4505M	15, 20, 25	Master Slave	PSDIP24
	MK4505S	15, 20, 25		PSDIP20
512 x 9 bit	MK4501*	65, 80, 100, 120, 150, 200	Fast	PDIP28, PLCC32
	MK45H01, 11	25, 35, 50, 65, 120		PDIP28, PLCC32, PSDIP28
1k x 9 bit	MK45H02, 12	25, 35, 50, 65, 120	Fast	PDIP28, PLCC32, PSDIP28
2k x 9 bit	MK4503*	65, 80, 100, 120, 150, 200	Fast	PDIP28
	MK45H03, 13	25, 35, 50, 65, 120		PDIP28, PLCC32, PSDIP28
4k x 9 bit	MK45H04, 14	25, 35, 50, 65, 120	Fast	PDIP28, PLCC32, PSDIP28
8k x 9 bit	MK45H08	25, 35, 50, 65, 120	Fast	PDIP28

Note: * Not for new designs

CACHE MEMORIES

Organisation	Part Number	Speed (ns)	Feature	Package
4k x 4 bit	MK41H80*	20, 22, 25, 35	TAGRAM	PSDIP22
	MK41S80	10, 12, 15, 20, 25	Very Fast TAGRAM	PSDIP22, PSQJ24
8k x 8 bit	MK48S74	20, 25, 35	TAGRAM	PSDIP28, PSQJ28
	MK48S80	17, 20, 25	Very Fast TAGRAM	PSDIP28, PSQJ28
2k x 20 bit	MK4202	17, 20, 25	20 bit wide TAGRAM	PLCC68
4k x 10 bit	MK45180	17, 20	SnoopTAG	PLCC68
32k x 9 bit	MK62486	14, 19, 25	BRAM	PLCC44
	MK62940	14, 19, 25	BRAM	PLCC44

Note: * Not for new designs

ZEROPOWER

Size	Part Number	Organisation	Speed (ns)	Feature	Package
16k bit	MK48C02A, 12A	2k x 8	150, 200, 250	External Battery -40 to 85 °C	PDIP28, PLCC32
	MK48Z02, 12	2k x 8	120, 150, 200, 250		PHDIP24 Battery Top Hat
	MKI48Z02, 12	2k x 8	150, 200, 250		PHDIP24 Battery Top Hat
64k bit	MK48Z08, 18	8k x 8	100	Power Fail Interrupt -40 to 85 °C	PHDIP28 Battery Top Hat
	MK48Z09, 19	8k x 8	100		PHDIP28 Battery Top Hat
	MKI48Z18	8k x 8	100		PHDIP28 Battery Top Hat
256k bit	MK48Z30, 30A	32k x 8	70, 120	10 yrs Life 25 °C 10 yrs Life 0-70 °C	PHDIP28 Battery Top Hat
	MK48Z32, 32A	32k x 8	70, 120		PHDIP28 Battery Top Hat

TIMEKEEPER

Size	Part Number	Organisation	Speed (ns)	Feature	Package
256 bit	MK41T56	64 x 8	Serial I/O	I ² C Bus	PSDIP8
	MK48T85	64 x 8		External Battery	PLCC28
	MK48T87	64 x 8		Real Time Clock	PHDIP24 Battery Top Hat
	MK48T87A	64 x 8		Real Time Clock, RAM Clear	PHDIP24 Battery Top Hat
16k bit	MK48T02, 12	2k x 8	150, 200, 250	Software Calibration	PHDIP24 Battery Top Hat
64k bit	MK48T08, 18	8k x 8	100, 150	Software Calibration	PHDIP28 Battery Top Hat