

SYMBOLS & CODES EXPLAINED

6. "P" Channel

7. "N" Channel — SILICON FIELD EFFECT TRANSISTORS

LINE No.	TYPE No.	1 MAX. DEVICE DISS @ 25°C (W)	2 MAX. Id=0 (V)	3 MAX. Vds (V)	4 ABS. MAX. BVdss (V)	ABS. MAX. RATINGS @ 25°C		7 Max. Idss @ Vgs=0 (A)	8 Max. Igss @ Vgs>Vp (A)	TEST COND.		PARAMETERS @ 25°C		13 Rds (Ω)	14 MAX. Cis (F)	DERATE IN FREE AIR W/°C	15 MAX. TEMP (°C)	STRUCTURE	DWG. Y200 s/s TO200 Ser.	# C A D E
						Id (A)	Ig (A)			Vgs (V)	Vds (V)	gfs (mhos)	Yos (mhos)							

▼ - Matched Type, also listed in Section 13, Category 6
 ◆ - Phototransistor, also listed in Section 13, Category 7 (See Above Also)

△ - With infinite heat sink
 † - Above 25°C; For additional information, consult manufacturer.

† - V_{GS} (Cut Off)
 △ - V_{GST} (Threshold)
 % - Typical
 # - Minimum

△ - Depletion Mode, Type A
 § - Depletion-Enhancement Mode, Type B
 * - Enhancement Mode, Type C

△ - BV_{DSO}
 † - BV_{DSX}

△ - BV_{DGO}

△ - Typical § - gfg
 † - Pulsed
 % - High Frequency (V_{fs})
 □ - YFS

△ - Y_{is} § - Y_{og}
 † - Not at given test conditions
 % - Maximum
 * - Pulsed

△ - V_{GD}
 † - V_{DG}

% - Maximum
 △ - Not given at test conditions
 † - R_{DS(on)} at V_{DS} = 0

∅ - I_D in mA

△ - I_{GDO}

△ - I_{DSS} @ V_{GS} = 0 and V_{DS} ≈ V_p
 ∅ - V_{GS} > 0
 # - Minimum
 * - Typical
 % - Pulsed

- C_{iss} (Output Shorted)
 △ - C_{dgs}
 † - C_{gss}
 % - Not given at test conditions
 * - Typical
 □ - C_{dss}
 ∅ - C_{dgo} § - C_{igs}

STRUCTURE
 D - Diffused
 E - Epitaxial
 Ge - GermaniumPE
 PE - Planar Epitaxial
 PL - Planar
 # - Junction Type
 * - Insulated Gate (MOS Type)
 § - Matched pair or dual
 △ - Switching, other uses
 % - Chopper, Other uses
 † - Noise figure 8db or below
 H - Plastic Package
 § - Hometaxial
 % - Tetrode
 % - Insulated Gate (MNOS Type)

A - Ambient J - Junction
 C - Case S - Storage

□ - Phototransistor Device
 △ - Tetrode Device
 % - Composite Type

8. GERMANIUM PNP

9. GERMANIUM NPN

10. SILICON PNP

11. SILICON NPN — High Power Transistors

LINE No.	TYPE No.	1 MIN. DERATE J to C W/°C	2 MAX. FREE AIR @ 25°C (W)	3 P _{CM} (W)	4 I _c (A)	5 I _b (A)	ABSOLUTE MAX. RATINGS @ 25°C			9 MAX. Icbo @ 25°C (A)	10 MAX. Vcb (V)	11 BIAS Ic (A)	12 MIN. f _{ae} (Hz)	13 MAX. f _{ae} (Hz)	14 MAX. SAT. RES. (Ω)	15 tr (s)	STRUCTURE	DWG. Y200 s/s TO200 Ser.	# C A D E
							BVcbo (V)	BVceo (V)	BVceo (V)										

† - 40°C ◆ - 80°C
 * - 45°C § - 100°C
 # - 50°C ∅ - Free Air
 □ - 60°C ∅ - Typical Value
 § - 75°C △ - > 100°C
 Symbols indicate temperature at which derating starts.

∅ - With infinite heat sink
 Following symbols indicate temp at which derating starts:
 † - 40°C □ - 60°C ◆ - 80°C
 * - 45°C § - 70°C △ - Pulsed
 # - 50°C § - 100°C % - Min.

* - 50-65°C A - Ambient
 ∅ - 70-80°C C - Case
 # - 85-100°C J - Junction
 ◆ - 110-125°C C - Case
 † - 130-135°C S - Storage
 § - 140-165°C
 § - 170-200°C
 ▼ - Over 200°C

∅ - I_E § - Minimum
 # - Pulsed or Peak
 † - At temperature 25°C Case

∅ - At V_{CB} < Max. V_{CB} (see mfr. spec.)
 # - I_{CEX} * - I_{cer} △ - I_{CEO}
 § - I_{CES} ◆ - At Temp. 25°C Case
 § - Typical † - At Temp. > 25°C

- BV_{CEx} or punch-through
 ∅ - BV_{CES} * - Pulsed
 § - BV_{CER} □ - BV_{ceo(SUS)}
 § - Minimum

† - At Temp. 25°C Case
 § - Minimum

∅ - I_E
 # - Pulsed
 § - Minimum

† - h_{fe} * - Available to selected range narrower than indicated
 # - Pulsed
 ∅ - Typical

□ - Maximum
 ∅ - t_d + t_r = T_{on}
 § - t_s
 # - t_f
 † - t_s + t_f = T_{off}
 * - T_{on} + T_{off}

▼ - Typical Value # - Pulsed

- Rated max. operating frequency
 † - f_{αb}
 § - Gain bandwidth product (f_T)
 * - Maximum frequency of oscillation
 ∅ - Figure of merit (frequency for unity power gain)
 △ - Minimum □ - Maximum

§ - Tetrode
 # - Radiation Resistant Device (Also see top of reverse side of card.)

11. SILICON NPN - HIGH POWER TRANSISTORS

IN ORDER OF (1) MIN. DERATING FACTOR
& (2) TYPE No.

LINE No.	TYPE No.	MIN. DERATE J to C (W/C)	MAX FREE AIR @ 25°C (W)	Pc	M T	ABSOLUTE MAX. RATINGS @ 25°C					MAX. hFE			MIN	MAX	fae (Hz)	MAX. SAT. RES. (Ω)	tr (s)	STRUC-TURE	Y200 s/a TO200 Ser.	DWG #	C O D E	
						Ic (A)	Ib (A)	BVcbo (V)	BVebo (V)	BVceo (V)	Icbo @ MAX 25°C (A)	Vcb (V)	Vbc (V)										Ic (A)
1	153-241	1.3	200	∅	∅	∅	7.5	3.0	265	25	240	10m#	4.00	1.5	15		866m	3.0u∅	DM	MT58			
2	153-261	1.3	200	∅	∅	∅	7.5	3.0	285	25	260	10m#	4.00	1.5	15		866m	3.0u∅	DM	MT58			
3	153-281	1.3	200	∅	∅	∅	7.5	3.0	305	25	280	10m#	4.00	1.5	15		866m	3.0u∅	DM	MT58			
4	153-301	1.3	200	∅	∅	∅	7.5	3.0	325	25	300	10m#	4.00	1.5	15		866m	3.0u∅	DM	MT58			
5	154-241	1.3	200	∅	∅	∅	7.5	3.0	265	25	240	10m#	4.00	1.5	25		833m	3.0u∅	DM	MT58			
6	154-261	1.3	200	∅	∅	∅	7.5	3.0	285	25	260	10m#	4.00	1.5	25		833m	3.0u∅	DM	MT58			
7	154-281	1.3	200	∅	∅	∅	7.5	3.0	305	25	280	10m#	4.00	1.5	25		833m	3.0u∅	DM	MT58			
8	154-301	1.3	200	∅	∅	∅	7.5	3.0	325	25	300	10m#	4.00	1.5	25		833m	3.0u∅	DM	MT58			
9	DTS1031	1.3	125	∅	∅	∅	15	5.0	80	5.0	60	250uΔ	1.50	5.0	20	55	4.0M\$Δ	180m	550n	DM	TO3	C∅	
10	DTS1041	1.3	125	∅	∅	∅	15	5.0	80	5.0	60	250uΔ	1.50	5.0	20	120	4.0M\$Δ	150m	550n	DM	TO3	C∅	
11	DTS1051	1.3	125	∅	∅	∅	15	5.0	100	5.0	80	250uΔ	1.50	5.0	20	55	4.0M\$Δ	180m	550n	DM	TO3	C∅	
12	DTS1061	1.3	125	∅	∅	∅	15	5.0	110	5.0	90	250uΔ	1.50	5.0	20	55	4.0M\$Δ	180m	550n	DM	TO3	C∅	
13	DTS1071	1.3	125	∅	∅	∅	15	5.0	120	5.0	100	250uΔ	1.50	5.0	20	55	4.0M\$Δ	180m	550n	DM	TO3	C∅	
14	DTS108	1.3	125	∅	∅	∅	15	5.0	100	5.0	100	250uΔ	1.50	5.0	20	120	4.0M\$Δ	150m	550n	DM	TO3	C∅	
15	DTS3704	1.3	∅	∅	∅	∅	2.0	.50	200	5.0	200	∅	5.00	.50	20	80	115k	1.6			TO41		
16	DTS3704A	1.3	∅	∅	∅	∅	2.0	.50	300	5.0	300	∅	5.00	.50	20	80	115k	1.6			TO41		
17	DTS3704B	1.3	∅	∅	∅	∅	2.0	.50	400	5.0	335	∅	5.00	.50	20	80	115k	1.6			TO41		
18	DTS3705	1.3	∅	∅	∅	∅	3.5		200	5.0	200	.50m	1.0	25	75	110k	.80			TO3			
19	DTS3705A	1.3	∅	∅	∅	∅	3.5		300	5.0	300	.50m	1.0	25	75	110k	.80			TO3			
20	DTS3705B	1.3	∅	∅	∅	∅	3.5		400	5.0	400	.50m	1.0	25	75	110k	.80			TO3			
21	SDT2101	1.3	∅	∅	∅	∅	#J 150		10	5.0	10		150	40	∅						MT41		
22	SDT2110	1.3	∅	∅	∅	∅	#J 150		10	5.0	10		150	40	∅		450k\$				MT41a		
23	SDT2111	1.3	∅	∅	∅	∅	#J 175		10	5.0	10		175	40	∅		450k\$				MT41a		
24	SDT2112	1.3	∅	∅	∅	∅	#J 200		10	5.0	10		200	40	∅		450k\$				MT41a		
25	SDT2150	1.3	∅	∅	∅	∅	#J 150		10	5.0	10		150	40	∅		450k\$				R121		
26	SDT2151	1.3	∅	∅	∅	∅	#J 175		10	5.0	10		175	40	∅		450k\$				R121		
27	SDT2152	1.3	∅	∅	∅	∅	#J 200		10	5.0	10		200	40	∅		450k\$				R121		
28	2N1016B/M	1.4 *	150	∅	∅	∅	7.5	5.0	100	25	100	1.0m	4.00	5.0	10	35	30k	500m	6.0u∅	FΔ	MT1		
29	2N1016C/M	1.4 *	150	∅	∅	∅	7.5	5.0	150	25	150	1.0m	4.00	5.0	10	35	30k	500m	6.0u∅	FΔ	MT1		
30	2N25841	1.4 *	150	∅	∅	∅	5.0	1.0	600	5.0	600	5.0m#	5.00	5.0	10	40	30kΔ	140m	6.0u∅		TO36	C∅	
31	2N25851	1.4 *	150	∅	∅	∅	5.0	1.0	600	5.0	600	5.0m#	5.00	5.0	25	65	30kΔ	1.0	6.0u∅		TO36	C∅	
32	151-241	1.4	100	∅	∅	∅	6.0	3.0	265	25	240	10m#	4.00	1.5	22	∅	870m	7.0u∅	F	MT1	A		
33	151-261	1.4	100	∅	∅	∅	6.0	3.0	285	25	260	10m#	4.00	1.5	22	∅	870m	7.0u∅	F	MT1	A		
34	151-281	1.4	100	∅	∅	∅	6.0	3.0	305	25	280	10m#	4.00	1.5	22	∅	870m	7.0u∅	F	MT1	A		
35	152-241	1.4	100	∅	∅	∅	6.0	3.0	265	25	240	10m#	4.00	1.5	37	∅	830m	7.0u∅	F	MT1	A		
36	152-261	1.4	100	∅	∅	∅	6.0	3.0	285	25	260	10m#	4.00	1.5	37	∅	830m	7.0u∅	F	MT1	A		
37	152-281	1.4	100	∅	∅	∅	6.0	3.0	305	25	280	10m#	4.00	1.5	37	∅	830m	7.0u∅	F	MT1	A		
38	1776-04401	1.4 \$	150	∅	∅	∅	75	#↑	15	40	7.01	40	2.0m#	3.00	40	15	#	20M\$Δ	25m	500n∅	EM	TO63	A
39	1776-04601	1.4 \$	150	∅	∅	∅	75	#↑	15	40	7.01	40	2.0m#	3.00	60	15	#	20M\$Δ	25m	600n∅	EM	TO63	A
40	1776-18601	1.4 \$	150	∅	∅	∅	75	#	15	#	180	7.0	180	3.00	60	15	#	20M\$Δ	25m	600n∅	EM	TO63	A
41	AMF227	1.4 *	150	∅	∅	∅	7.5	#	50	30	50	30	4.00	2.0	10		20k	750m		ME	MT1		
42	AMF227A	1.4 *	150	∅	∅	∅	7.5	#	50	30	50	30	4.00	2.0	10		20k	750m		ME	MT1		
43	AMF227B	1.4 *	150	∅	∅	∅	7.5	#	50	30	50	30	4.00	2.0	10		20k	750m		ME	MT1		
44	AMF227C	1.4 *	150	∅	∅	∅	7.5	#	50	30	50	30	4.00	2.0	10		20k	750m		ME	MT1		
45	AMF228	1.4 *	150	∅	∅	∅	7.5	#	50	30	50	30	4.00	5.0	10		20k	500m		ME	MT1		
46	AMF228A	1.4 *	150	∅	∅	∅	7.5	#	50	30	50	30	4.00	5.0	10		20k	500m		ME	MT1		
47	AMF228B	1.4 *	150	∅	∅	∅	7.5	#	50	30	50	30	4.00	5.0	10		20k	500m		ME	MT1		
48	AMF228C	1.4 *	150	∅	∅	∅	7.5	#	50	30	50	30	4.00	5.0	10		20k	500m		ME	MT1		
49	AMF229	1.4 *	150	∅	∅	∅	4.0		30	50	30	30	4.00	1.0	10		20k	1.0		ME	MT1		
50	AMF229A	1.4 *	150	∅	∅	∅	4.0		60	50	60	30	4.00	1.0	10		20k	1.0		ME	MT1		
51	AMF229B	1.4 *	150	∅	∅	∅	4.0		100	50	100	30	4.00	1.0	10		20k	1.0		ME	MT1		
52	AMF229C	1.4 *	150	∅	∅	∅	4.0		150	50	150	30	4.00	1.0	10		20k	1.0		ME	MT1		
53	BSC1015	1.4 *	150	∅	∅	∅	7.5	5.0	10	10	30	#	4.00	2.0	10		20k	750m		DM	MT1		
54	BSC1015A	1.4 *	150	∅	∅	∅	7.5	5.0	10	10	60	#	4.00	2.0	10		20k	750m		DM	MT1		
55	BSC1015B	1.4 *	150	∅	∅	∅	7.5	5.0	10	10	100	#	4.00	2.0	10		20k	750m		DM	MT1		
56	BSC1016	1.4 *	150	∅	∅	∅	7.5	5.0	10	10	30	#	4.00	5.0	10		20k	500m		DM	MT1		
57	BSC1016A	1.4 *	150	∅	∅	∅	7.5	5.0	10	10	60	#	4.00	5.0	10		20k	500m		DM	MT1		
58	BSC1016B	1.4 *	150	∅	∅	∅	7.5	5.0	10	10	100	#	4.00	5.0	10		20k	500m		DM	MT1		
59	SDT2205	1.4	121	∅	∅	∅	50	10	10	5.0	5.0	5.0	1.00	50	40	#	120	∅	450k	3.0m	A	MT23	
60	SDT2305	1.4	121	∅	∅	∅	50	10	10	5.0	5.0	5.0	1.00	50	40	#	120	∅	450k	3.0m	A	TO36	C∅
61	SEC1477	1.4	∅	∅	∅	∅	∅	∅	50	9.0	50	∅	∅	5.0	2.0		2.0				MT1		
62	SEC1478	1.4	∅	∅	∅	∅	∅	∅	100	9.0	100	∅	∅	5.0	2.0		2.0				MT1		
63	SEC1479	1.4	∅	∅	∅	∅	∅	∅	50	9.0	50	∅	∅	5.0	2.0		2.0				MT1		
64	SEC1480	1.4	∅	∅	∅	∅	∅	∅	100	9.0	100	∅	∅	5.0	2.0		2.0				MT1		
65	STC1015	1.4	150	∅	∅	∅	7.5	5.0	30	10	30	10m	4.00	2.0	10		2.5Mt	750m	900n	D	MT1		
66	STC1015A	1.4	150	∅	∅	∅	7.5	5.0	60	10	60	10m	4.00	2.0	10		2.5Mt	750m	900n	D	MT1		
67	STC1015B	1.4	150	∅	∅	∅	7.5	5.0	100	10	100	10m	4.00	2.0	10		2.5Mt	750m	900n	D	MT1		
68	STC1015C	1.4	150	∅	∅	∅	7.5	5.0	150	10	150	10m	4.00	2.0	10		2.5Mt	750m	900n	D	MT1		
69	STC1015D	1.4	150	∅	∅	∅	7.5	5.0	200	10	200	10m	4.00	2.0	10		2.5Mt	750m	900				

SYMBOLS & CODES EXPLAINED

SYMBOLS & CODES COMMON TO MORE THAN ONE TECHNICAL SECTION

<p>LINE No.</p> <ul style="list-style-type: none"> ▼ - New Type ◆ - Revised Specifications # - Non-JEDEC type manufactured outside U.S.A. 	<p>TYPE No.</p> <ul style="list-style-type: none"> † - Switching type, also listed in Section 12 ∅ - Chopper, also listed in Section 13, Category 10 * - These types also included elsewhere with other characteristics. See Type No. Cross Index for alternate line number. § - Radiation Resistant Devices, also listed in Section 13, Category 13.
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STRUCTURE (All Sections Except 6 & 7)

- A - Alloy
- AN - Annular
- D - Diffused or drift
- DM - Diffused mesa
- E - Epitaxial
- EA - Epitaxial annular
- EM - Epitaxial mesa
- F - Fused
- G - Grown
- GA - Gallium Arsenide
- H - Hometaxial
- MA - Mico alloy
- MD - Micro alloy diffused
- ME - Mesa
- MOS - Metal oxide silicon
- PA - Precision alloy
- PC - Point contact
- PD - Precision alloy diffused
- PE - Planar epitaxial
- PL - Planar
- S - Surface barrier
- * - Matched pair
- △ - Switching, other uses
- - Chopper, other uses
- ∅ - Noise figure 8db or below
- † - Plastic package
- ∅ - Overlay

12. SWITCHING TRANSISTORS * THESE TYPES ALSO INCLUDED ELSEWHERE WITH OTHER CHARACTERISTICS SEE TYPE NO. CROSS INDEX FOR ADDITIONAL PAGE & LINE NO.

LINE No.	TYPE No.	fab (Hz)	MAX RISE TIME tr (s)	MAX DELAY TIME td (s)	MAX STORE TIME ts (s)	MAX FALL TIME tf (s)	MAX. P _c IN FREE AIR @ 25°C (W)	BIAS			MAX. SAT. RES. (Ω)	C _{ob} (F)	r _{bb} X C _{ob} (s)	STRUCTURE	DESCRIPTION	L C O A D E
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15		

- † - $f \alpha_e$
- § - Gain bandwidth product (f_T)
- * - Maximum frequency of oscillation
- ∅ - Figure of merit (frequency for unity power gain)
- △ - Minimum □ - Maximum
- § - Charge storage time constant
- ▼ - Stored base charge - picocoulomb
- ◆ - Total switching time
- ∅ - $T_{on} = t_r + t_d$
- † - Typical Value
- ∅ - $T_{off} = t_s + t_f$
- † - Typical Value
- * - $T_{on} + T_{off} = t_d + t_r + t_f + t_s$

- ∅ - V_{CE}
- ∅ - I_c
- △ - I_B
- † - h_{fe}
- # - Pulsed
- △ - Minimum
- - Maximum
- * - Available to selected range narrower than indicated
- § - Y_{fs} in millimho (FET's only). Bias values are V_{DS} & I_D
- ∅ - With infinite heat sink
- Following symbols indicate temperature at which derating starts:
- † - 40°C § - 70°C
- * - 45°C ◆ - 100°C or greater
- # - 50°C ◇ - 80°C
- - 60°C △ - Pulsed

- † - r'_{bb}
- - Maximum
- § - C_{cb}
- § - C_{iss} (FET's only)
- § - R_{on} (FET's only)
- # - Pulsed
- Ge - Germanium
- Si - Silicon
- § - Tetrode
- N - NPN or "N" Channel
- P - PNP or "P" Channel
- § - Field Effect Transistor
- # - Radiation Resistant Device (See above also)
- A - Ambient
- C - Case
- J - Junction
- S - Storage

13. MISCELLANEOUS TRANSISTORS

LINE No.	TYPE No.	1 CATEGORY	2 U STRUCTURE	3 M A T	DWG. No.	L C O A D E	DESCRIPTION
1	2	3	4	5	6	7	8

- 1 - Avalanche Mode
- 2 - Bi-directional
- 3 - Field Effect
- 4 - Hook Collector
- 5 - Complementary Symmetry (PNP & NPN) Matched Pair
- 6 - Matched Pair
- 7 - Phototransistor
- 8 - Tetrode
- 9 - Unijunction: N-N-type emitter (P-type Base) P-P-type emitter (N-type Base)
- 10 - Chopper
- 11 - Unmatched Composite (Dual)
- 12 - Cryogenic
- 13 - Radiation Resistant Devices
- 14 - Pressure Sensitive
- 15 - Transistor chips
- 16 - Darlington
- 17 - Microwave

- Ge - Germanium
- Si - Silicon
- N - NPN or N Channel
- P - PNP or P Channel (See above also)
- See "TECHNICAL TERM DEFINITIONS" Section

12. SWITCHING TRANSISTORS

IN ORDER OF (1) fab, (2) MAX RISE TIME & (3) TYPE No.

LINE No.	TYPE No.	fab (Hz)	MAX RISE TIME tr (s)	MAX DELAY TIME td (s)	MAX STORE TIME ts (s)	MAX FALL TIME tf (s)	MAX. Pc AIR @ 25°C (W)	BIAS			MAX. SAT. RES. (Ω)	Cob (F)	r'bb X Cob (s)	STRUCTURE P-PNP N-NPN	M A T	MAX. TEMP (°C)	DWG # Y200 s/a TO200 Ser.	L E A D E
								Vcb (V)	le (A)	hFE								
1#	111T2		1.0n	5.0n		4.0n	800m	10 ∅	150m∅	120 ∇	3.0			N-PE	Si	175J	R100	A
2	NS1110		1.0n	5.0n		4.0n	500m							Si	175J	TO18	A∅	
3	NS1111		1.0n	5.0n		4.0n	500m							Si	175J	TO18	A∅	
4	NS1116		1.0n	5.0n		4.0n	500m		500m∅				N	Si	175J	TO18	A∅	
5#	BSV38		3.0n	6.0n		25n∅	300m∅				25 \$	18p\$∇	NPE\$	Si	150S	u51	G E	
6#	BSV38P		3.0n	6.0n		25n∅	150m∅				25 \$	18p\$∇	NPE\$	Si	150S	u17c	G E	
7	A197		5.0n	15n∅		20n∅	200m					16p\$∇	NS∇	Si	150J	TO106	DD	
8	A198		5.0n	15n∅		35 ∅	200m					16p\$∇	NS∇	Si	150J	TO106	DD	
9	A199		5.0n	15n∅		50 ∅	200m					16p\$∇	NS∇	Si	150J	TO106	DD	
10	HSC4391		5.0n	15n∅	20n∅	15n	310m				30	14p	N-E\$	Si	125S	TO106	DB	
11	HSC4392		5.0n	15n∅	35n∅	20n	310m				60	14p	N-E\$	Si	125S	TO106	DB	
12	HSC4393		5.0n	15n∅	50n∅	30n	310m				100	14p	N-E\$	Si	125S	TO106	DB	
13	HSC5638		5.0n	5.0n		10n	310m					10p	N-E\$	Si	125S	TO106	DB	
14	LDF691		5.0n	15n∅	20n∅	15n	360m					16p\$∇	NS∇	Si	150J	u34	DB	
15	LDF692		5.0n	15n∅	35n∅	20n	360m					16p\$∇	NS∇	Si	150J	u34	DB	
16	LDF693		5.0n	15n∅	50n∅	30n	360m					16p\$∇	NS∇	Si	150J	u34	DB	
17	HSC5639		8.0n	10n		20n	310m					10p	N-E\$	Si	125S	TO106	DB	
18	2N4094		10n	15n		40n∅	1.8 ∅				20 \$		N	Si	200S	TO18	DB∅	
19	HSC5640		10n	15n		30n	310m					10p	N-E\$	Si	125S	TO106	DB	
20	RH120		10n∅	25n\$		25n∅	200m	5.0 ∅	10m∅	130 #∇	200	2.0p∇	N-PL	Si	200J	ZA14		
21	D26B1		12n∅		10n∅	15n∅	90m	1.0 ∅	10m∅	60 #∇		4.0p∇	N-EP	Si	100J	u40b		
22	D26B2		12n∅		13n	18n∅	90m	1.0 ∅	10m∅	120 #∇		4.0p∇	N-EP	Si	100J	u40b		
23	2N2967		15n∅		6.0n	15n∅	300m	1.0 ∅	30m	15 Δ	2.0	3.0p	N	Si	200J	TO18	∅	
24	S939		15n	10n		25n	15n	1.5 ∅	1.0 ∅	15 Δ	1.0	10p	N	Si	200J	TO39		
25	V220		15n∅	30n\$			300m	100m∅	10m∅	90 Δ	285		N-PE	Si	200J	ZA18		
26	V221		15n∅	30n\$			300m	100m∅	10m∅	130 Δ	285		N-PE	Si	200J	ZA18		
27	V222		15n∅	30n\$			300m	100m∅	10m∅	160 Δ	285		N-PE	Si	200J	ZA18		
28#	MD501		18n		12n	10n	60m	500m∅	10m∅	20 Δ		5.0p∇	P-MD	Ge		TO1		
29#	MD501B		18n		12n	10n	60m	500m∅	10m∅	20 Δ		3.0p∇	P-MD	Ge		TO1		
30	2N2100A		20n		50n	40n	300m	1.0 ∅	200m∅	30 Δ		20p∇	P	Ge	100S	TO9		
31	2N4092A		20n	15n		60n∅	1.8 ∅				50 \$	16p\$∇	N	Si	200S	TO18	DB∅	
32	2N4095		20n	15n		60n∅	1.8 ∅				40 \$		N	Si	200S	TO18	DB∅	
33	MEM400		30n	30n	160n	180n	600m				40 \$	25p\$	P	Si	200S	TO33	DM	
34	MEM401		30n	30n	160n	180n	600m				60 \$	25p\$	P	Si	200S	TO33	DM	
35	MEM402		30n	30n	160n	180n	600m				75 \$	30p\$	P	Si	200S	TO33	DM	
36	2N847		32n∅		25n	33n	200m				1.5		N	Si	175S			
37	2N848		32n∅		25n	33n	200m				1.5		N	Si	175S			
38	2N1763		32n∅		25n	33n	300m				1.5		N	Si	175S			
39	2N1764		32n∅		25n	33n	300m				1.5		N	Si	175S			
40	2N4093A		40n	20n		80n∅	1.8 ∅				80 \$	16p\$∇	N	Si	200S	TO18	DB∅	
41	CMX740		50n∅			75n∅	400m				2.5 \$		N\$	Si	200J	R346	DD∅	
42	MM2102		50n	20n	30n	50n	800m∅	10	2.0m	1.0 \$	200 \$	4.5p\$	N-MOS	Si	200J	TO8y		
43	MM2103		50n	30n	25n	50n	800m∅	10	2.0m	1.0 \$	600 \$	6.5p\$	P-MOS	Si	200J	R38y		
44	2N781		60n∅		20n	50n	150m	.22 ∅	10m∅	25 Δ	16		P	Ge	100J	TO18	A∅	
45	2N1960		60n∅		20n	50n	1.0 ∅	220m∅	10m∅	25 Δ	16		P	Ge	100J	TO46	A∅	
46#	BSW30		60n	50n		100n∅	1.3 ∅					11p\$	P-MOS	Si	175J	TO72	DM	
47#	BSW31		60n	50n		100n∅	1.3 ∅					11p\$	P-MOS	Si	175J	TO72	DM	
48	A390		65n	45n	35n	75n	800m∅	10	2.0m	1.0m\$	300 \$	5.5p\$	N-MOS	Si	200J	TO72	DZ	
49	MEM200		65n	45n	100n	100n	225m				200 \$	5.0p\$	N	Si	200S	TO22	DR	
50	MEM201		65n	45n	100n	100n	225m				300 \$	5.0p\$	N	Si	200S	TO22	DR	
51	MEM202		65n	45n	100n	100n	225m				500 \$	7.0p\$	N	Si	200S	TO22	DR	
52	2N725		70n∅		100n	100n	150m					5.0p	P-DME	Ge	100J	TO18	A∅	
53	2N695		75n∅		100n	100n	75m	300m∅	10m∅	25 Δ	2.0	5.0p∇	P	Ge	100J	TO17	G	
54	2N1961		75n∅		35n	75n	150m	.25 ∅	10m∅	20 Δ	20		P	Ge	100J	TO46	A∅	
55#	MDS37		75n∅		120n	100n	150m	300m∅	40m∅	20 Δ			P-MD	Ge		TO18		
56	MEM100		75n	55n	150n	150n	300m				150 \$	9.0p\$	P	Si	200S	TO72	DM	
57	MEM101		75n	55n	150n	150n	300m				175 \$	10p\$	P	Si	200S	TO72	DM	
58	MEM102		75n	55n	150n	150n	300m				200 \$	11p\$	P	Si	200S	TO72	DM	
59#	98T2		85n∇	60n∇	85n∇	40n∇	200m	5.0 ∅	100m∅	350 *	6.0		N-PE1	Si	100J	TO98	B	
60#	BSV20		100n	20n	30n	150n	400m						P-MOS	Si	175J	TO72	DM	
61#	BSV20A		100n	20n	30n	150n	400m						P-MOS	Si	175J	TO72	DM	
62#	BSV34		100n	20n	30n	150n	600m						P-MOS	Si	175J	L51a		
63#	BSV34A		100n	20n	30n	150n	600m						P-MOS	Si	175J	L51a		
64	D4D20		100n		100n	100n	150m	5.0 ∅	10m∅	15	150	4.0p∇	N-GD	Si	150J	R133	A	
65	D4D21		100n		100n	100n	150m	5.0 ∅	10m∅	40	150	4.0p∇	N-GD	Si	150J	R133	A	
66	D4D22		100n		100n	100n	150m	5.0 ∅	10m∅	120	150	4.0p∇	N-GD	Si	150J	R133	A	
67#	BSX83		150n	100n		400n∅	1.0 ∅				600m\$	1.5k\$	P-DPL	Si	175J	TO72	DM	
68#	BSX84		150n	100n		400n∅	1.0 ∅				800m\$	2.5p\$	P-DPL	Si	175J	TO72	DM	
69	3N21		200n		500n∅	100m					2.5		P	Ge	50A			
70#	BSW95		200n	10n	50n	400n	350m						P-MOS	Si	175J	TO72	DM	
71#	BSW95A		200n	10n	50n	400n	350m						P-MOS	Si	175J	TO72	DM	
72	2N747		350n∅		200n	200n	200m	1.0 ∅	10m∅	90 ∇	120m	8.0p∇	N	Si	175S	u95	A	
73	2N748		350n∅		350n	350n	200m	1.0 ∅	10m∅	40 ∇	100m	8.0p∇	N	Si	175S	u95	A	
74#	3SJ11		400n∇		400n∇	200m							N	Si	150S	TO72	A	
75	2N528		500n		1.0u	500n	2.5	1.0 ∅	500m∅	20	500m	45p∇	P-A	Ge	100A	TO38	A∇	
76	2N625		500n	500n	500n	1.5 ∅	1.5	1.5	50m∅	45 Δ	2.0	60p∇	N-A	Ge	100S			
77	2N803		800n	500n	75m	350m	150m	1.5 ∅	150m∅	15 Δ	2.1	20p∇	P	Ge	85S	u8	A	
78	2N804		800n	500n	75m	350m	150m	1.5 ∅	150m∅	15 Δ	2.1	20p∇	P	Ge	85S	u8	A	
79	2N805		800n	500n	75m	350m	200m∅	20 Δ	1.6	20p∇			P	Ge	85S	u8	A	
80	2N806		800n	500n	75m	350m	200m∅	20 Δ	1.6	20p∇			P	Ge	85S	u8	A	
81	2N819		800n	500n	75m	1.0 ∅	50m∅	30 Δ	5.0	20p∇			N	Ge	100S	u8	A	
82	2N820		800n	500n	75m	1.0 ∅	50m∅	30 Δ	5.0	20p∇			N	Ge	100S	u8	A	
83	2N821		800n	500n	75m	1.0 ∅	50m∅	40 Δ	5.0	20p∇			N	Ge	100S	u8	A	
84	2N822		800n	500n	75m	1.0 ∅	50m∅	40 Δ	5.0	20p∇			N	Ge	100S	u8	A	
85	2N801		1.0u	500n	75m	350m	100m∅	10 Δ	3.2	20p∇			P	Ge	85S	u8	A	
86	2N802		1.0u	500n	75m	350m	100m∅	10 Δ	3.2	20p∇			P	Ge	85S	u8	A	
87	2N817		1.0u	500n	75m	1.0 ∅	50m∅	20 Δ	5.0	20p∇			N	Ge	100S	u8	A	
88	2N818		1.0u	500n	75m	1.0 ∅	50m∅	20 Δ	5.0	20p∇			N	Ge	100S	u8	A	
89#	2SC406		1000n		700n	150m		1.0 ∅	100m∅	120		</						