

# SYMBOLS & CODES EXPLAINED

## IN TYPE No. CROSS-INDEX & TECHNICAL SECTIONS

- $\Delta$  } Indicators of separate manufacturers producing same type number (non-JEDEC) whose characteristics are not the same.
- $\square$  } This manufacturer-identifying symbol (assigned by D.A.T.A.) is an integral part of the type number (in Type No. Cross Index, Technical Data Sections) to avoid the possibility of confusing the devices of one manufacturer with the devices of others.
- $\%$  } Technical Data Sections)
- RT ... Replacement Type; consult manufacturer.

## SYMBOLS & CODES COMMON TO MORE THAN ONE TECHNICAL SECTION

### LINE No.

- $\nabla$  - New Type
- $\blacklozenge$  - Revised Specifications
- # - Non-JEDEC Type manufactured outside U.S.A.

### TYPE No.

- $\dagger$  - Switching type, also listed in Section 12
- $\emptyset$  - Chopper, also listed in Section 13, Category 10
- \* - These types also included elsewhere with other characteristics. See Type No. Cross Index for alternate line no.
- $\S$  - Radiation Resistant Devices, also listed in Section 13, Category 13.

### STRUCTURE (All Sections)

- A - Alloy Except 6 & 7)
- 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
- $\Delta$  - Switching, other uses
- $\square$  - Chopper, other uses
- $\emptyset$  - Noise figure 8db or below
- $\dagger$  - Plastic package
- $\%$  - Overlay

## 2. GERMANIUM PNP 3. GERMANIUM NPN 4. SILICON PNP 5. SILICON NPN -- Low Power Transistors

LINE No.	TYPE No.	MAX. COLL. DISS. @25°C (W)	DERATE IN FREE AIR W/°C (Hz)	TEMP. RANGING @25°C (V)	ABS. MAX. RATINGS @25°C (V)	MAX. ICBO @MAX Vcb (A)	MAX. ICES @MAX Vcb (A)	TYPICAL h PARAMETERS	BIAS	COMMON EMITTER	Cob	STRUC-TURE	DWG #	REF. TO
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

$\emptyset$  - With infinite heat sink  
Following symbols indicate temperature at which derating starts:

$\dagger$ - 40°C	$\square$ - 60°C	$\S$ - 100°C
* - 45°C	$\S$ - 70°C	$\blacklozenge$ - Min.
# - 50°C	$\Delta$ - 85°C	

$\dagger$  -  $f_{ae}$   
 $\S$  - Gain bandwidth product ( $f_t$ )  
\* - Maximum frequency of oscillation  
 $\emptyset$  - Figure of merit (frequency for unity power gain)  
 $\Delta$  - Minimum  
 $\square$  - Maximum

$\emptyset$  - With infinite heat sink

* - 50-65°C	A - Ambient
$\emptyset$ - 70-80°C	C - Case
# - 85-100°C	J - Junction
$\blacklozenge$ - 110-125°C	S - Storage
$\dagger$ - 130-135°C	
$\S$ - 140-165°C	
$\square$ - 170-200°C	
$\nabla$ - Over 200°C	

$\emptyset$  -  $I_C$      $\Delta$  -  $I_B$

$\emptyset$  -  $V_{CE}$

$\emptyset$  - At  $V_{CB} < \text{Max. } V_{CB}$  (See Mfr. Spec.)  
# -  $I_{CEX}$      $\S$  - Typical  
 $\S$  -  $I_{CES}$     \* -  $I_{CER}$   
 $\dagger$  - At Temp.  $> 25^\circ\text{C}$      $\Delta$  -  $I_{CEO}$   
 $\blacklozenge$  - At Temp.  $25^\circ\text{C}$  Case

# - Pulsed or Peak  
 $\S$  - Minimum

# -  $BV_{CEX}$  or punch-through  
 $\emptyset$  -  $BV_{CES}$      $\square$  -  $BV_{ce0(sus)}$   
 $\S$  -  $BV_{CER}$     \* - Pulsed  
 $\$$  - Indicates min. values given for  $BV_{cbo}$ ,  $BV_{ceo}$ , and  $BV_{ebo}$ .

b - h parameters are  $h_{ob}$ ,  $h_{ib}$ ,  $h_{rb}$   
 $\square$  - Maximum

$\dagger$  -  $h_{FE}$      $\Delta$  - Minimum  
# - Pulsed     $\square$  - Maximum  
 $\S$  -  $h_{FC}$   
\* - Available in selected ranges

$\square$  - Maximum     $\S$  -  $C_{cb}$      $\dagger$  -  $C_{re}$

$\$$  - Tetrode  
# - Radiation Resistant Device (Also See Above)

# 5. SILICON NPN - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION  
(2) fab & (3) TYPE No.

LINE No.	TYPE No.	1 MAX. COLL. DISS. @25°C	2 fab (Hz)	DERATE		ABS MAX RATINGS @25°C						TYPICAL 'h' PARAMETERS							Cob (F)	STRUC-TURE	DWG Y200 s/a TO200 Ser.	# CODE
				IN FREE AIR W/°C	M A M X P	BVcbo (V)	BVceo (V)	BVebo (V)	Ic (A)	Icbo @MAX Vcb (A)	BIAS			COMMON EMITTER								
											Vcb (V)	Ic (A)	hfe	hoe (mhos)	hie (Ω)	hre (X.0001)						
1	PMT122	100m	400M	1.7m	5J	50	20	5.0	220m	50u	3.0	10m	2.0	2.0	2.0	5p	ME	u6				
2	PMT222	100m	400M	1.7m	5J	50	20	5.0	220m	50u	3.0	10m	2.0	2.0	5p	ME	u5					
3	2SC430	100m	420M		5J	25	12	2.0	10m	1.0u	6.0	1.0m	4.0	4.0	6.0u	PE	u23	C				
4	2N708/TNT	100m	480MΔ		5J	40	15	5.0		2.5n	1.0	10m	3.0	1.0	6.0p	PL	u17					
5	2SC286	100m	600MΔ		5J	20	12	2.0	10m	1.0u	6.0	2.0m	7.0	7.0	1.0p	PE	u23					
6	2SC287	100m	600MΔ		5J	20	12	2.0	10m	1.0u	6.0	2.0m	7.0	7.0	1.0p	PE	u23	C				
7	10D556.2.3	100m	600MΔ		5J	25	15	3.0		1.0u	1.0	3.0m	2.0	1.0	1.7p	PE	u27					
8	PMT023†	100m	750M	1.0m	5J	25	20	3.0		50u	1.0	10m	2.0	2.0	5.0p	ME	u7					
9	PMT216†	100m	750M	1.3m	5J	25	20	3.0		50u	1.0	10m	2.0	2.0	5.0p	ME	u7					
10	2N709/TNT	100m	800MΔ		5J	15	6.0	4.0		0.5u	5.0	10m	5.0	5.0	3p	PL	u17					
11	2N2369/TNT	100m	800MΔ		5J	40	15	4.5	500m	40u	1.0	10m	8.0	8.0	4p	PL	u17					
12	2N2594/TNT	100m	800MΔ		5J	40	15	4.5	500m	40u	1.0	10m	8.0	8.0	4p	PL	u17					
13	2SC271	100m	800MΔ		5J	25	12	3.0	20m	1.0u	6.0	2.0m	7.0	7.0	1p	PE	u23a	C				
14	2SC288	100m	850MΔ		5J	30	12	2.0	10m	1.0u	6.0	2.0m	7.0	7.0	1p	PE	u23a	C				
15	Q2	100m	900MΔ		5J	30	25	4.0	10m	10n	6.0	2.0m	4.0	1.0	1.8p	E						
16	Q3	100m	900MΔ		5J	30	25	4.0	10m	10n	6.0	2.0m	4.0	1.0	1.8p	E						
17	Q4	100m	900MΔ		5J	30	25	4.0	10m	10n	6.0	2.0m	4.0	1.0	1.8p	E						
18	Q5	100m	900MΔ		5J	30	25	4.0	10m	10n	6.0	2.0m	4.0	1.0	1.8p	E						
19	2N2784/TNT	100m	1.0G		5J	15	6.0	4.0	500m	5n	5.0	10m	12.0	12.0	3p	PE	u17					
20	2SC289	100m	1.1G		5J	25	12	3.0	10m	1.0u	6.0	2.0m	7.0	7.0	1p	PE	u23	C				
21	2N3633/TNT	100m	1.3G		5J	15	6.0	4.0	50m	5n	5.0	10m	15.0	15.0	2.5p	PE	u17					
22	BC155A	105m*	50MΔ		5J	5.0	5.0	5.0	50m	10n	1.0	500u	85	85	PE†	u30b	D					
23	BC155B	105m*	50MΔ		5J	5.0	5.0	5.0	50m	10n	1.0	500u	200	200	PE†	u30b	D					
24	BC155C	105m*	50MΔ		5J	5.0	5.0	5.0	50m	10n	1.0	500u	470	470	PE†	u30b	D					
25	BFY69	105m*	50MΔ		5J	25	15	5.0		100n	1.0	500u	40	40	PE†	u30b	D					
26	BFY69A	105m*	50MΔ		5J	25	15	5.0		100n	1.0	500u	55	55	PE†	u30b	D					
27	BC194†	105m*	250MΔ		5J	40	25	5.0	800m	10u	1.0	150m	2.0	1.0	8.0p	PE†	u30b	D				
28	2N778	110m			5J	20		2.0	100m		10	2.0m	11	11	D							
29	BFS18CA	110m	200M		5J	30	20	5.0	30m	100n	10	1.0m	125	125	PE†	u56a	A					
30	BFS19CB	110m	260M		5J	30	20	5.0	30m	100n	10	1.0m	225	225	PE†	u56a	A					
31	BF19	120m*	260M		5J	40	35	4.0	20m	500n	7.0	1.0m	180	180	PE	TO98	B					
32	BF220	120m*	260M		5J	40	35	4.0	20m	500n	7.0	1.0m	180	180	PE	TO98	B					
33	2SC705	120m*	800M		5J	15		3.0	30m	1.0u	6.0	1.0m	80	80	PE	R145	D					
34	3N26	125m			5J	30			10m						G							
35	3N27	125m			5J	15		1.0	25m	1.0u	5.0	10m	33	33	G							
36	4D24	125m			5J	15	15	1.0	25m	1.0u	5.0	10m	88	88	GΔ	TO5	A					
37	4D25	125m			5J	15	15	1.0	25m	1.0u	5.0	10m	133	133	GΔ	TO5	A					
38	4D26	125m			5J	15	15	1.0	25m	1.0u	5.0	10m	133	133	GΔ	TO5	A					
39	925	125m			5J	30			10m						D							
40	926	125m			5J	30			10m						D							
41	D4D24	125m			5J	15	15	1.0	25m	1.0u	5.0	10m	33	33	GΔ	TO5	A					
42	D4D25	125m			5J	15	15	1.0	25m	1.0u	5.0	10m	88	88	GΔ	TO5	A					
43	D4D26	125m			5J	15	15	1.0	25m	1.0u	5.0	10m	133	133	GΔ	TO5	A					
44	2S005	125m	30 Δ		5J	40			20m	1.0u	5.0	20	100	100	GD	TO5						
45	3N32	125m	4.3M		5J	30			10m				40	40	D							
46	2N1103†	125m	10MΔ		5S	45	35	1.0	20m	1.0u	20	1.0m	20	20	1.0u	80	20	3.0p	TO5	A		
47	10T2	125m	10M		5J	30			25m		1.0m	1.0m	31	31								
48	11T2	125m	10M		5J	30			25m		1.0m	1.0m	63	63								
49	12T2	125m	10M		5J	30			25m		1.0m	1.0m	100	100								
50	3N33	125m	12M		5J	30			10m						D							
51	2S014	125m	20M		5J	40		1.0	20m	1.0u	20	1.0m	65	65	200nb	50	3.0	1.6p	R30			
52	NS075	125m	20M		5J	45		1.0	20m	2.0u	5.0	10m	40	40	200nb	40	2.0	1.2p	ME			
53	ST1694	125m	20M		5J	40	20	1.0	20m	2.0u	5.0	10m	40	40	4p	ME		TO5				
54	2SC157	125m	25M		5J	20		1.0	20m	1.0u	6.0	2.0m	30	30	3.0p	ME		TO5				
55	NS078	125m	30M		5J	45		1.0	20m	2.0u	5.0	10m	99	99	200nb	40	3.0	1.2p	ME			
56	2SC158	125m	40M		5J	20		1.0	20m	1.0u	6.0	2.0m	40	40	3.0p	ME		TO5				
57	2SC159	125m	60M		5J	20		1.0	20m	1.0u	6.0	2.0m	50	50	3.0p	ME		TO5				
58	3N35A	125m	70MΔ		5S	30	30	1.0	20m	40u	20	1.3m	10	10				TO12				
59	2SC160	125m	100M		5J	20		1.0	20m	1.0u	6.0	2.0m	60	60	3.0p	ME		TO5				
60	3S002	125m	100M		5J	30		1.0	20m	10u	20	1.0m	25	25	1.5p	GD		TO12				
61	3S004	125m	150M		5J	30		1.0	20m	10u	20	1.0m	25	25	1.5p	GD†		TO12				
62	BSW33†	125m*	300M		5J	40	32	5.0	100m	70n	0.0	10m	60	60	3.0p	PE†	MM13	F				
63	BSW34†	125m*	300M		5J	50	45	5.0	100m	70n	0.0	10m	60	60	3.0p	PE†	MM13	F				
64	BSW35†	125m*	300M		5J	60	60	5.0	100m	70n	0.0	10m	50	50	3.0p	PE†	MM13	F				
65	ST63†	125m	300MΔ		5S	15	12	6.5	50m	10u	.35	5.0m	40	40	5.0p	PEΔ		TO18				
66	BFS57P	125m	1.7G		5A	25	13	3.0	50m	10n	6.0	5.0m	20	20	1.0p	PE		u17c				
67	K5202	125m	1.8GΔ		5J	25	12	2.5	50m	50n	1.0	3.0m	20	20	1.0p	PE		TO50				
68	BFS58P	125m	2.4G		5A	25	13	3.0	50m	20n	6.0	5.0m	20	20	1.0p	PE		u17c				
69	2N777	130m			5J	20		2.0	100m		10	2.0m	20	20	1.5p	D		TO18				
70	BC155	130m	50MΔ		5J	5.0	5.0	5.0	50m	10u	1.0	50m	85	85	8.0p	PE		u30				
71	BC129A	135m	85M		5J	50	45	6.0	100m	15u	5.0	2.0m	125	125	2.5p	PE		TO18				
72	BC129B	135m	85M		5J	50	45	6.0	100m	15u	5.0	2.0m	240	240	30u	5.0k	1.0	2.5p	PE			
73	BC130A	135m	85M		5J	30	20	5.0	100m	15u	5.0	2.0m	125	125	18u	3.0k	1.0	2.5p	PE			

**SYMBOLS & CODES EXPLAINED**

**SYMBOLS & CODES COMMON TO MORE THAN ONE TECHNICAL SECTION**

**LINE No.**  
 ▼ - New Type  
 ♦ - Revised Specifications  
 # - Non-JEDEC type manufactured outside U.S.A.

**TYPE No.**  
 † - 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.

**STRUCTURE (All Sections)**  
 A - Alloy Except 6 & 7)  
 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  
 Δ - 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 <sub>c</sub> IN FREE AIR @ 25°C (W)	BIAS			MAX. SAT. RES. (Ω)	C <sub>ob</sub> (F)	r <sub>bb</sub> X C <sub>ob</sub> (s)	STRUCTURE	DESCRIPTION	MAX. TEMP (°C)	DWG. No.	LCODE
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19

† -  $f \alpha_e$   
 § - Gain bandwidth product ( $f_T$ )  
 \* - Maximum frequency of oscillation  
 ∅ - Figure of merit (frequency for unity power gain)  
 Δ - 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  
 \* -  $T_{on} + T_{off} = t_d + t_r + t_f + t_s$

∅ -  $V_{CE}$   
 ∅ -  $I_C$   
 Δ -  $I_B$   
 † -  $h_{fe}$   
 # - Pulsed  
 Δ - 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 Δ - Pulsed

† -  $r'_{bb}$   
 □ - Maximum  
 § -  $C_{cb}$   
 § -  $C_{iss}$  (FET's only)  
 § -  $R_{on}$  (FET's only)  
 # - Pulsed

§ - 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.	CATEGORY	STRUCTURE	MATERIAL	DWG. No.	LCODE	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

N - NPN or N Channel  
 P - PNP or P Channel (See above also)

Ge - Germanium  
 Si - Silicon

See "TECHNICAL TERM DEFINITIONS" Section

# 13. MISCELLANEOUS TRANSISTORS

IN ORDER OF (1) CATEGORY & (2) TYPE No.

LINE No.	2 TYPE No.	1 CATEGORY U STRUC- TURE	M DWG # A T Y200 s/a TO200 Ser.	L C E O D A D E	DESCRIPTION
1	SA2738*	6 N	Si L2t		Pt-6W;hFE1/2-90 min;VBE(1-2)-1.5mV max; $\Delta$ VBE(1-2)/ $\Delta$ T-3uV/deg.C.
2	SA2739*	6 N	Si L2t		Pt-6W;hFE1/2-90 min;VBE(1-2)-2.5mV max; $\Delta$ VBE(1-2)/ $\Delta$ T-5uV/deg.C.
3	SD5010*	6 P-MOS	Si L53		Pt 325mW(each side) at 25°C Case temp;Vfs 1/2 800m min;VGS(1-2) 70mV.
4	SD5011*	6 P-MOS	Si L54		Pt 325mW(each side) at 25°C Case temp;Vfs 1/2 800m min;VGS(1-2) 70mV.
5	SD5012*	6 P-MOS	Si L53		Pt 325mW(each side) at 25°C Case temp;Vfs 1/2 800m min;VGS(1-2) 70mV.
6	SD5013*	6 P-MOS	Si L54		Pt 325mW(each side) at 25°C Case temp;Vfs 1/2 800m min;VGS(1-2) 70mV.
7	SD5014*	6 P-MOS	Si L53		Pt-325mW(each side) at 25°C case temp;Vfs 1/2 .80min;VGS 1/2-200mV max.
8	SD5015*	6 P-MOS	Si L54		Pt-325mW(each side) at 25°C case temp;Vfs 1/2 .80min;VGS 1/2-200mV max.
9	SD5050*	6 N-MOS	Si L53		Pt-325mW(each side) at 25°C case temp;Vfs 1/2 .80min;VGS 1/2-200mV max.
10	SD5051*	6 N-MOS	Si L54		Pt-325mW(each side) at 25°C case temp;Vfs 1/2 .80min;VGS 1/2-200mV max.
11#	SL360	6 NPN	Si L44a		BVCEO 15V;IC-30mA max;Pt-60W;VBE(1-2)-20mV;Cob-6.0pf.
12	SMT100	6 P	Si L17a		BVCEO-45V;IC-30mA max;Pt-60W;VBE(1-2)-20mV;Cob-6.0pf.
13	SMT101	6 P	Si L17a		BVCEO-45V;IC-30mA max;Pt-60W;VBE(1-2)-10mV;hFE1/hFE2-80 min.
14	SMT102	6 P	Si L17a		BVCEO-45V;IC-30mA max;Pt-60W;VBE(1-2)-10mV;hFE1/hFE2-80 min.
15	SMT103	6 P	Si L17a		BVCEO-45V;IC-30mA max;Pt-60W;VBE(1-2)-5.0mV;hFE1/hFE2-90 min.
16	SMT104	6 P	Si L17a		BVCEO-45V;IC-30mA max;Pt-60W;VBE(1-2)-5.0mV;hFE1/hFE2-90 min.
17	SMT105	6 P	Si L17a		BVCEO-45V;IC-30mA max;Pt-60W;VBE(1-2)-5.0mV;hFE1/hFE2-90 min.
18	SP8300	6 N-PL	Si L8a		Pc-30W;BVCEO-40V;hFE-30 min;IC-10mA;ICBO-0.25uA max.
19	SP8302	6 N-PL	Si L8a		Pc-50W;BVCEO-100V;hFE-75 min;IC-10mA;ICBO-0.25mA max.
20	SP8303	6 N-PL	Si L8a		Pc-50W;BVCEO-100V;hFE-35 min;IC-10mA;ICBO-0.25mA max.
21	SP8304	6 N-PL	Si L8a		Pc-30W;BVCEO-40V;hFE-30 min;IC-10mA;ICBO-0.25uA max.
22	SP8307	6 P-PL	Si L8a		Pc-30W;BVCEO-20V;hFE-35 min;IC-10mA;ICBO-0.1uA max.
23	SP8309	6 N-PL	Si L8a		Pc-50W;BVCEO-75V;hFE-40 min;IC-150mA;ICBO-0.1uA max.
24	SP8310	6 N-PL	Si L8a		Pc-50W;BVCEO-75V;hFE-100 min;IC-150mA;ICBO-0.1uA max.
25	SP8311	6 N-PL	Si L8a		Pc-50W;BVCEO-120V;hFE-40 min;IC-150mA;ICBO-0.1uA max.
26	SP10801	6 N-DPL	Si TO89		hFE1/hFE2-0.8min;VBE1-VBE2-1.6mV max;NF-4.0db max
27	SP10810	6 P-DPE	Si TO89		hFE1/hFE2-0.8min;VBE1-VBE2-4.0mV max;hFE-35min at 10mA-1.0V
28	SU2074*	6 N	Si L21		Pt-300mW; gm 1/2-95 min;VGS(1-2)-15mV max; $\Delta$ VGS(1-2)/ $\Delta$ T-10uV/deg.C.
29	SU2075*	6 N	Si L21		Pt-300mW; gm 1/2-95 min;VGS(1-2)-15mV max; $\Delta$ VGS(1-2)/ $\Delta$ T-15uV/deg.C.
30	SU2076*	6 N	Si L21		Pt-250mW; gm 1/2-95 min;VGS(1-2)-15mV max; $\Delta$ VGS(1-2)/ $\Delta$ T-10uV/deg.C.
31	SU2077*	6 N	Si L21		Pt-250mW; gm 1/2-95 min;VGS(1-2)-15mV max; $\Delta$ VGS(1-2)/ $\Delta$ T-25uV/deg.C.
32	SU2078*	6 N	Si L21		Pt-250mW; gm 1/2-95min;VGS(1-2)-15mV max; $\Delta$ VGS(1-2)/ $\Delta$ T-35uV/deg.C.
33	SU2079*	6 N	Si L21		Pt-250mW; gm 1/2-95 min;VGS(1-2)-15mV max; $\Delta$ VGS(1-2)/ $\Delta$ T-60uV/deg.C.
34#	TA-M93	6 NPN	Si TO5		Dual 2N3930;10% hFE match;5.0mV VBE match;hFE at 10uA-50 min.
35	U205*	6 N	Si TO71		Pt-30W;IG(1-2)-5.0mA max;VGS(1-2)-5.0mV max;gfs 1/2-95 min.
36	U206*	6 N	Si TO71		Pt-30W;IG(1-2)-5.0mA max;VGS(1-2)-10mV max;gfs 1/2-95 min.
37	U207*	6 N	Si TO71		Pt-30W;IG(1-2)-5.0mA max;VGS(1-2)-15mV max;gfs 1/2-95 min.
38	UD1000	6 P-PE	Si L38		Pt(Both Sides)-200mW;BVCEO-50V;V <sub>o</sub> (1-2)-100uV max;IB and IC-20mA.
39	UD2000	6 P-PE	Si L2n		Pt-400mW;BVCEO-50V;VBE1/2-5mV max;hFE1/2-90 min; $\Delta$ VBE1-2-10uV/degC
40	JAN1N4378	7 NΔ	Si X69		Pt-50mW;ID-1.0nA max;IC-9.0mA max;tr-1.5uS max;VCE-50V;VEC-8V.
41	2N318	7 P-A	Ge		Pc-50mW; VCE-12V max; Sens-25uA/ft can;fab-750kc.
42	2N577	7 P	Ge		Pt-25mW; IC-10mA; I <sub>dark</sub> -300uA; Photosens-30A/lumen.
43	800	7 N-G	Ge		Max. Coll. Dist. 65mW; BVCE 20V; IC 5.0mA; Max. Temp. 75 deg.C.
44#	BPX30	7 NΔ	Si X8	A0	Pt-500mW;ICE(D)-1.0uA max;Sens-100mA/mW/cm <sup>2</sup> ;tr-3.0uSec;tf-3.0uSec.
45#	BPX59	7 NΔ	Si X8k	A0	Darlington;Pc 200mW;Ic 5.0mA at EA 100;tr 200us;tf 150us;Max spectral Sens 780nm.
46#	BPY62	7 N-PE	Si X8a	A5	Pt-20W;IC-1.0mA min;at B-1000 lux;Sens-1.0uM;VCE-15V.
47#	BPY66	7 N-DPL	Si X52		ID-1.0uA max;IL-80mA min;BVCEO-5.0V min.
48	CLR2090	7 N-PEΔ	Si L3k		Darlington;Pc 250mW;BVCEO 40V min;IL 600uA min at 20uW/cm sq;tr 100us;tf 150us.
49	CLR2191	7 N-PEΔ	Si L3k		Darlington;Pc 250mW;BVCEO 40V min;IL 4.0mA min at 20uW/cm sq;tr 100us;tf 150us.
50	CLT4160	7 N-PEΔ	Si u85a		Pd 50mW;BVCEO 50V;BVCEO 5.0V, IL 3.0mA max;ID 10nA max;tr 1.5us typ;tf 1.5us typ.
51	CLT4170	7 N-PEΔ	Si u85a		Pd 50mW;BVCEO 40V;BVCEO 5.0V, IL 5.0mA max;ID 10nA max;tr 1.5us typ;tf 1.5us typ.
52	EIP	7 P	Ge		Idk-10uA; Ilt-10mA; Sens-300uA/1m.
53	EP120	7 PΔ	Si R110c	DB	Pt 250mW;Sin 400nA/mW/cm sq;IG(DARK) 30pA max;I <sub>gss</sub> (DARK) 500pA max;Vp 10V max.
54	EP121	7 PΔ	Si R110c	DB	Pt 250mW;Sin 400nA/mW/cm sq;IG(DARK) 30pA max;I <sub>gss</sub> (DARK) 500pA max;Vp 1.5V max.
55	EP122	7 PΔ	Si R110c	DB	Pt 250mW;Sin 400nA/mW/cm sq;IG(DARK) 30pA max;I <sub>gss</sub> (DARK) 500pA max;Vp 4.0V max.
56	EP123	7 PΔ	Si R110c	DB	Pt 250mW;Sin 400nA/mW/cm sq;IG(DARK) 30pA max;I <sub>gss</sub> (DARK) 500pA max;Vp 10V max.
57#	ES3501	7 P-A	Ge R71		Pc-36mW at 45 deg. C;BVCEO-10V; Ic-10mA max;Photosens-20uA/ft.
58#	ES3511	7 P-A	Ge R88		Pc-50mW; BVCEO-25V; IC-20mA max; Photosens-1.0uA/Lux
59	FF400*	7 N-EΔ	Si TO72	DH	IG(Light)-15nA/FC min;ID(Light)-30uA/FC typ;tr-30ns;tf-50ns.
60	FPM100	7 N-PL	Si X52		Pt-75mW max;ID-1.0uA max;IL-80mA max;BVCEO-5.0V min.
61	FPN100	7 N-PL	Si		Phototrans;Pd-75mW;ID-1.0uA max;IL-80mA min.
62	FPO100	7 N-PL	Si X52a		Pt-75mW max;ID-1.0uA max;IL-80mA max.
63	FPT100	7 N-PLΔ	Si R124	A	Pt-100mW max;ID-101nA max;IC-25mA;tr-3.0uSec.
64	FSP5	7 N-PL	Si X8		Pc-50W max; BVCEO-100V; Photo-Sens-1.0uA/ft min.
65	GS100	7 N-PLΔ	Si u54		Pt-50mW;IL-1.0mA min;ID-1.0nA;VCE (SAT)-30V;tr-7.0us max;tf-40us max.
66	GS102	7 N-PLΔ	Si u54		Pt-50mW;IL-1.0mA min;ID-1.0nA;VCE (SAT)-30V;tr-7.0us max;tf-40us max.
67	GS170	7 N-PLΔ	Si u54		Pt-50mW;IL-1.0mA min;ID-20nA;VCE (SAT)-30V;tr-7.0us max;tf-40us max.
68	GS172	7 N-PLΔ	Si u54		Pt-50mW;IL-1.0mA min;ID-20nA;VCE (SAT)-30V;tr-7.0us max;tf-40us max.
69	GS300	7 N-PLΔ	Si X90a		Pt-50mW;IL-1.0mA min;ID-1.0nA;VCE (SAT)-30V;tr-7.0us max;tf-40us max.
70	GS302	7 N-PLΔ	Si X90a		Pt-50mW;IL-1.0mA min;ID-1.0nA;VCE (SAT)-30V;tr-7.0us max;tf-40us max.
71	GS370	7 N-PLΔ	Si X90a		Pt-50mW;IL-1.0mA min;ID-20nA;VCE (SAT)-30V;tr-7.0us max;tf-40us max.
72	GS372	7 N-PLΔ	Si X90a		Pt-50mW;IL-1.0mA min;ID-20nA;VCE (SAT)-30V;tr-7.0us max;tf-40us max.
73	GS600L	7 N-PLΔ	Si X29		Pt-25W; IL-30mA; ID-10nA; VCE-10V max; Sens-75uA/ft
74	GS601	7 N-PLΔ	Si X29		Pt-25W; IL-20mA; ID-20nA; VCE-5.0V max; Sens-50uA/ft
75	GS611	7 N-PLΔ	Si X29		Pt-25W; IL-3.0mA;ID-(12V)-1.0nA;VCE-12V max;Sens-7.5uA/ft
76	GS614	7 N-PLΔ	Si X29		Pt-150mW;IL-5.0mA min;ID-1.0nA;VCE (SAT)-30V;tr-1.5us max;tf-2.0us max.
77	GS680	7 N-PLΔ	Si X29		Pt-25W; IL-40mA; ID-10nA; VCE-5.0V max; Sens-100uA/ft
78	HFA4202	7 N	Si X40		BVCEO-25V; fae-120Kc; Cob-9.0pf; hFE-400 typ.
79	ME510	7 N-PE	Si TO18		BVCEO-10V; Photosens-2.0uA/ft min. at VCE-5.0V, IB-0.0
80	MRD100*	7 NANΔ	Si u43	B	Pd-50mW;BVCEO-80V;BVCEO-40V;ICEO(dark)-100nA max;Sens.Rad.CEO-100nA/mW/sq.cm.
81	MRD200	7 N-AN	Si X83		Pt-05W;ICEO(dark)-25nA;BVCEO-50V;Sens-2.0uA/lum/ft.sq. min.
82	MRD210	7 N	Si X83a		BVCEO-50V;ICEO-25nA at 25deg C;SICE-4uA/lum/ft-2min;LS-8um typ.
83	MRD250	7 N	Si X83a		BVCEO-50V;ICEO-25nA at 25deg C;SICE-8uA/lum/ft-2min;LS-8um typ.
84	OCP71	7 P	Ge R9		Pt-50mW; BVCEO-25V; IC-20mA; Sens-30A/lm
85#	OS13	7 P	Ge X1		Pc-15mW max; BVCEO-30V; Ic-2mA max.
86#	OS15	7 N	Si X1		Pc-30mW max;BVCEO-30V max;Ic-200uA max; Photo-Sens-1uA/500 Lumen.
87#	OS16	7 N	Si X1		Pc-30mW max;BVCEO-30V max;Ic-200uA max; Photo-Sens-4uA/500 Lumen.
88#	OS17	7 N	Si X1		Pc-30mW max;BVCEO-30V max;Ic-200uA max; Photo-Sens-7uA/500 Lumen.
89	PD3L	7 P	Ge		Pc-10W max; BVCEO-50V; IC-5.0mA max.
90	PDB	7 P	Ge		Pc-20mW max; BVCEO-50V; IC-5.0mA max.
91	PFN3066*	7 N-E	Si TO18	DB	IGSS(light) 3.0nA/ft;ID(light) 2.0uA/ft.
92	PFN3069*	7 N-E	Si TO18	DB	IGSS(light) 8.0nA/ft;ID(light) 14uA/ft.
93	PFN3458*	7 N-E	Si TO18	DB	IGSS(light) 10nA/ft;ID(light) 35uA/ft.
94#	PH244N*	7 N-PEΔ	Si X8f	DB0	Pd 300mW; IGSS(light) 15nA/FC;ID(light) 100uA/FC.
95	TIL58	7 NPLΔ	Si X69a		Pd-50mW;ID-25nA max;IL-1.0mA min;tr-2.0uSec;BVCEO-50V;BVCEO-8.0V;tf-15uSec.
96	TIL78	7 N	Si		Pc-50mW max; fab-200Mc; IC-2.0mA max.
97	3N25	8 PGD	Si		Pc-125W max; BVCEO-30V; Ic-10mA; Gain 18 db ICBO-2uA
98	3N35A	8 N	Si TO12		Pd-125W;Rsat-300 ohms;ries-20 ohms min;Coep-3.0pf
99	3N56	8 NΔ	Si TO5		Pc-15W max; BVCEO-18V; IC-30mA max.
100	3N57	8 NΔ	Si TO5		Pc-15W max; BVCEO-18V; IC-30mA max.
101#	3S001	8 N-D	Si		Pc-125mW;BVCEO-30V;Ic-10mA; Gain 18 db ICBO-2uA
102#	3S002	8 N-GD	Si TO12		Pc-125W max; fab-100Mc; BVCEO-30V; Ic-10mA max.
103#	3S003	8 N-D	Si		Pc-125mW;BVCEO-30V;Ic-10mA; Gain 20 db ICBO-2uA
104#	3S004	8 N-GD S	Si TO1	2	Pc-125W max; fab-150Mc; BVCEO-30V; Ic-10mA max.
105	GTA3	8 P	Ge		Pc-2.5mW; fab-200Mc; BVCEO-15V; Ic-2.0mA max.
106	JAN2N489	9 P-N	Si R33		Pc-45W max;VE-60V max;ISR-62 max;RBBO-6.8k Ω max.
107	JAN2N490	9 P-N	Si R33		Pc-45W max;VE-60V max;ISR-62 max;RBBO-6.8k Ω max.
108	JAN2N491	9 P-N	Si R33		Pc-45W max;VE-60V max;ISR-68 max;RBBO-6.8k Ω max.
109	JAN2N492	9 P-N	Si R33		Pc-45W max;VE-60V max;ISR-68 max;RBBO-6.8k Ω max.
110	JAN2N493	9 P-N	Si R33		Pc-45W max;VE-60V max;ISR-75 max;RBBO-6.8k Ω max.