

SYMBOLS & CODES EXPLAINED

IN TYPE No. CROSS-INDEX & TECHNICAL SECTIONS

- Δ } 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.

- ∇ - 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
- Δ - 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	M E X P	ABS. MAX. RATINGS @25°C			TYPICAL 'h' PARAMETERS					Cob (F)	STRUC-TURE	DWG # s/a TO200 Ser.	C E D E	
					V_{cb0} (V)	V_{ce0} (V)	I_{c0} (A)	I_{cbo} @MAX V_{cb} (A)	V_{cb} (V)	BIAS I_e (A)	h_{fe}	hoe (mhos)					hie (Ω)
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	Δ - 85°C	

\dagger - f_{ae}
 \S - Gain bandwidth product (f_t)
* - Maximum frequency of oscillation
 \emptyset - Figure of merit (frequency for unity power gain)
 Δ - 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	
∇ - Over 200°C	

\emptyset - I_c Δ - 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. $> 25^\circ\text{C}$ Δ - I_{CEO}
 \blacklozenge - At Temp. 25°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_{cb0} , BV_{ce0} , and BV_{ebo} .

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

\dagger - h_{FE} Δ - 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. 2		DERATE		ABS MAX RATINGS @25°C						TYPICAL 'h' PARAMETERS										Cob	STRUC-TURE	DWG Y200 s/a TO200 Ser.	# C L E O D E		
		COLL. DISS. @25°C (W)	fab (Hz)	IN FREE AIR W/°C	M A X P	BVcbo (V)	BVceo (V)	BVebo (V)	Ic (A)	lcbo @MAX Vcb (V)	Vcb (V)	le (A)	hfe	COMMON EMITTER			(F)										
															hoe (mhos)	hie (Ω)	hre X.0001										
1	GI3643	300m	250M	3.0m	Δ	60	30	5.0		.05u	100	150m	40	Δ				8p	PE	R97d							
2#	ST01	300m	250M	5.0u	Δ	35	14	5.0		SS	100	10m	35	Δ				12p	PE	TO18							
3	A154	300m	260M	3.0m	Δ	30	20	5.0		Δ	50n	1.00	1.0m	115	†			850ft	PE	TO106							
4	A164	300m	260M	3.0m	Δ	30	20	5.0		30m	100	1.0m	115	†				850ft	PE	TO106							
5#	ST501†	300m	270M	5.0u	Δ	25	15	4.5			25n	1.00	1.0m	22	Δ				PE	TO18							
6#	ST502†	300m	270M	5.0u	Δ	25	15	6.0			25n	1.00	1.0m	50	Δ				PE	TO18							
7	JAN2N851†	300m	300M	2.0m	Δ	20	12	5.0		200m	.350	1.0m	20	Δ				5.0p	PE	TO50							
8	JAN2N852†	300m	300M	2.0m	Δ	20	12	5.0		200m	.350	1.0m	60	Δ				5.0p	PE	TO50							
9	2N2413	300m	300M	2.0m	Δ	18	5.0	200m			.10u	1.00	1.0m	30	Δ				EM	TO18							
10	2N3310	300m	300M	1.7m	Δ	35	15	3.0		200m	.01u	2.00	2.0m	10	Δ				3p	EM	TO38						
11#	2S95A†	300m	300M	1.7m	Δ	20	15	5.0		200m	.50n	3.50	1.0m	30	Δ				6.0p	PE	TO18						
12	A134	300m	300M	3.0m	Δ	90	50	8.0		100m	15u	5.00	2.0m	4.15	†			50u	PE	R97b							
13	A135	300m	300M	3.0m	Δ	90	50	8.0		100m	15u	5.00	2.0m	650	†			70u	PE	R97b							
14	A136	300m	300M	3.0m	Δ	90	50	8.0		100m	15u	5.00	2.0m	900	†			100u	PE	R97b							
15	A137	300m	300M	3.0m	Δ	45	30	5.0		100m	15u	5.00	2.0m	4.15	†			50u	PE	R97b							
16	A138	300m	300M	3.0m	Δ	45	30	5.0		100m	15u	5.00	2.0m	650	†			70u	PE	R97b							
17	A139	300m	300M	3.0m	Δ	45	30	5.0		100m	15u	5.00	2.0m	900	†			100u	PE	R97b							
18	A157C	300m	300M	2.0m	Δ	45	30	5.0		100m	15u	5.00	2.0m	450	†			100u	PE	TO18							
19	A159	300m	300M	2.0m	Δ	20	15	5.0		100m	10u	3.50	1.0m	30	Δ			22u	PE	TO18							
20	A344†	300m	300M	2.0m	Δ	20	15	5.0		100m	.10u	3.50	1.0m	30	Δ				5p	PE	TO18						
21	A345†	300m	300M	2.0m	Δ	20	15	5.0		100m	.10u	3.50	1.0m	30	Δ				5p	PE	TO18						
22	A346†	300m	300M	2.0m	Δ	20	15	5.0		100m	.10u	3.50	1.0m	40	Δ				5p	PE	TO18						
23	A749	300m	300M	2.0m	Δ	20	15	5.0		100m	5.00	2.0m	500					44u	PE	MM10							
24#	AT406	300m	300M	2.4m	Δ	50	30	5.0		500m	200n	1.00	5.0m	100	†				8.0p	PE	MM12a						
25#	AT407	300m	300M	2.4m	Δ	50	45	5.0		500m	200n	1.00	5.0m	100	†				8.0p	PE	MM12a						
26#	BSW92†	300m	300M	3.0m	Δ	18	18	5.0		200m	50u	4.50	2.0m	75	†				5.0p	PE	R110						
27	NS381	300m	300M	2.0m	Δ	25	20	5.0		100m	.10u	4.00	3.0m	40	†				5p	EA	TO18						
28	NS382	300m	300M	2.0m	Δ	25	20	5.0		100m	.10u	4.00	3.0m	80	†				5p	EA	TO18						
29	NS383	300m	300M	2.0m	Δ	20	12	5.0		100m	.10u	4.00	3.0m	30	†				5p	EA	TO18						
30	NS384	300m	300M	2.0m	Δ	20	12	5.0		100m	.10u	4.00	3.0m	80	†				5p	EA	TO18						
31#	PEP2†	300m	300M	2.0m	Δ	25	15	5.0		200m	50n	1.00	1.0m	20					6.0p	PE	TO18						
32#	PEP5†	300m	300M	2.0m	Δ	25	15	5.0		200m	50n	1.00	1.0m	40	Δ				6.0p	PE	TO18						
33#	PEP6†	300m	300M	2.0m	Δ	15	5.0	200m			50n	1.00	1.0m	40	Δ				6.0p	PE	TO18						
34#	PEP7†	300m	300M	2.0m	Δ	25	15	5.0		200m	50n	1.00	1.0m	40	Δ				6.0p	PE	TO18						
35#	PEP8†	300m	300M	2.0m	Δ	15	5.0	200m			50n	1.00	1.0m	40	Δ				6.0p	PE	TO18						
36	QD100-71*	300m	300M	1.7m	Δ	25	15	6.5		20m	1.00	5.00	1.0u	150	†			40u	PE	L2p							
37#	ST502	300m	300M	Δ	SS	25	12	5.0			25n	1.00	1.0m	30	Δ				6.0p	PE	TO18						
38#	ST531	300m	300M	Δ	SS	25	12	5.0			25n	1.00	1.0m	40	Δ				6.0p	PE	TO18						
39#	ST55†	300m	300M	Δ	SS	40	15	6.0			25n	1.00	1.0m	40	Δ				6.0p	PE	TO18						
40#	ST56†	300m	300M	Δ	SS	25	20	5.0			25n	1.00	1.0m	40	Δ				6.0p	PE	TO18						
41#	ST57†	300m	300M	Δ	SS	15	10	4.0			100n	5.00	1.0m	40	Δ				6.0p	PE	TO18						
42	STE400	300m	300M	3.0m	Δ	40	30	5.0			05u	1.00	2.0m	150	†				3p	PE	R97d						
43	STE401	300m	300M	3.0m	Δ	30	25	5.0			05u	1.00	2.0m	360	†				3p	PE	R97d						
44#	TK257A	300m	300M	Δ	Δ	30	30	3.0		100m	25n	9.00	1.0m	25	Δ				4.0p	PL	TO18						
45#	TK258A†	300m	300M	2.0m	Δ	15	12	3.0		100m	05u	0.00	1.0m	20	Δ				5.0p	PE	TO18						
46#	TK259A†	300m	300M	2.0m	Δ	15	12	3.0		100m	05u	0.00	1.0m	40	Δ				5.0p	PE	TO18						
47#	ZT190†	300m	300M	2.4m	Δ	20	15	5.0		200m	20n	4.00	1.0m	50	Δ				6.0p	PL	TO18						
48#	ZT191†	300m	300M	2.0m	Δ	20	20	5.0		200m	50n	4.00	1.0m	35	†				10p	PL	TO18						
49#	ZT192†	300m	300M	2.0m	Δ	40	20	5.0		200m	50n	4.00	1.0m	38	†				6.0p	PL	TO18						
50#	ZT193†	300m	300M	2.0m	Δ	40	20	5.0		200m	50n	4.00	1.0m	75	†				6.0p	PL	TO18						
51	40220†	300m	350M	2.0m	Δ	40	30	5.0		200m	500n	1.00	1.0m	25	Δ				4.0p	PE	TO52						
52	FM3014†	300m	350M	1.7m	Δ	40	20	5.0			300n	4.00	3.0m	30	Δ				5.0p	PE	TO46						
53	2N706B/51†	300m	400M	2.5m	Δ	25	20	5.0			10u	1.00	1.0m	40	†				4.5p	EM	TO51						
54	2N743/51†	300m	400M	2.5m	Δ	20	12	5.0		200m	350	1.00	1.0m	40	†				5p	EM	TO51						
55	2N744/51†	300m	400M	2.5m	Δ	20	12	5.0		200m	350	1.00	1.0m	80	†				5p	EM	TO51						
56	2N2217/51†	300m	400M	1.7m	Δ	60	30	5.0			.01u	1.00	150m	40	†				4.0p	PE	TO51						
57	2N2218/51†	300m	400M	1.7m	Δ	60	30	5.0			.01u	1.00	150m	80	†				4.0p	PE	TO51						
58	2N2219/51†	300m	400M	1.7m	Δ	60	30	5.0			.01u	1.00	150m	150	†				4.0p	PE	TO51						
59	2N2967†	300m	400M	1.7m	Δ	12	6.0	4.0			50n	5.00	1.0m	20	Δ				3.0p	Δ	TO18						
60#	2SC83†	300m	400M	2.0m	Δ	25	20	3.0		50m	1.0u	1.00	1.0m	15	Δ				4.5p	ME	TO18						
61#	97EPA†	300m	400M	3.0m	Δ	20	12	5.0		50m	40u	1.00	1.0m	10	Δ				4p	PL	u46						
62#	97EPB†	300m	400M	3.0m	Δ	20	12	5.0		50m	40u	1.00	1.0m	40	Δ				4p	PL	u46						
63	40217†	300m	400M	2.0m	Δ	25	20	3.0			500n	1.00	1.0m	20	Δ				5.0p	PE	TO52						
64#	BFY28	300m	400M	2.0m	Δ	60	30	6.0																			

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 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	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)
 △ - 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

§ - 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

12. SWITCHING TRANSISTORS

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

LINE No.	TYPE No.	fab	MAX RISE TIME tr (s)	MAX DELAY TIME td (s)	MAX STORE TIME ts (s)	MAX FALL TIME tf (s)	MAX. Pc IN FREE AIR @ (W)	BIAS			MAX. SAT. RES. (Ω)	Cob (F)	r'bb X Cob (s)	STRUCTURE P-NPN N-NPN	M A T	MAX. TEMP (°C)	DWG # Y200 s/a TO200 Ser.	#	L O D E
								Vcb (V)	Ic (A)	hFE									
1	LDS206	250M					360m	5.0	1.0	100		6.0p	N	Si	150J	TO122		P	
2	2N3982	250MΔ	15n	15n	25n	15n	3.0	1.0	150m	140	2.7	8.0p	N	Si	200J	TO5		∅	
3#	BSV85	250M	15n	45n	110n	40n	360m	10	10	150m	80	8.0p	N	Si	200	TO18		A	
4	TIS82	250MΔ	15n	10n	15n	15n	1.0	5.0	1.0	25		12p	N	Si	175J	TO5		∅	
5	A3T2221	250MΔ	16nt	7.0nt	130nt	20nt	225m	10	10	150m	120	8.0p	N-PE	Si	150S	u44		A	
6	A3T2222	250MΔ	16nt	7.0nt	160nt	20nt	225m	10	10	150m	300	8.0p	N-PE	Si	150S	u44		A	
7#	MDS33C	250MΔ	18n		12n	10n	60m	5.0	10m	6.2	100	4.0p	P-MD	Ge		TO1		∅	
8	2N3981	250MΔ	20n	15n	30n	10n	3.0	1.0	150m	120	2.7	8.0p	N	Si	200J	TO5		∅	
9	A3T2221A	250MΔ	25n	10n	225n	60n	225m	10	10	150m	120	8.0p	N-PET	Si	150S	u44		A	
10	FM2242	250MΔ	30n			50n	350m	1.0	10m	40	7.0	6.0p	N	Si	200	TO46		∅	
11	2N3131	250M	35n	10n	25n	10n	75n	1.0	10m	120	25	4.0p	N-P	Si	150J	X16		∅	
12	MM1756	250MΔ	35n			285n		10	10	150m	40	8.0p	N	Si		TO46		∅	
13	S17900	250MΔ	35n			65n	3.0	1.0	100m	90	1.0	10p	N-PE	Si	200S	TO5		A	
14	TE3903	250M	35n	35n	175n	50n	310m	1.0	10m	50	20	4.0p	N	Si	150J	R97a		∅	
15	TE3906	250MΔ	35n		225n	75n	1.0	1.0	10m	300	25	4.5p	P-DPL	∅	Si	135J	R97a		A
16#	2SC103A	250M	40n		500n	60n	250m	1.0	10m	40	4.0p	8.0p	N-PL	Si	175J	TO18		∅	
17#	FM2846	250MΔ	40n			40n	800m	10	150m	30	3.2	8.0p	N-PE	Si	200J	TO46		∅	
18	TA2626	250MΔ	40n			80n	800m	1.0	100m	30	800m	12p	N-DPE	Si	200J	TO5		∅	
19	TA2750	250MΔ	40n			60n	800m	1.0	100m	30	800m	12p	N-DPE	Si	200J	TO5		∅	
20	TE4951	250MΔ	40n		350n	360m	10	10	10m	40	8.0p	8.0p	N	Si	150S	TO106		A	
21	TE4952	250MΔ	40n		350n	360m	10	10	10m	75	8.0p	8.0p	N	Si	150S	TO106		A	
22	TE4953	250MΔ	40n		400n	360m	10	10	10m	150	8.0p	8.0p	N	Si	150S	TO106		A	
23	TE4954	250MΔ	40n		400n	360m	10	10	10m	40	8.0p	8.0p	N	Si	150S	TO106		A	
24	TE5368	250MΔ	40n		400n	360m	10	10	10m	40	8.0p	8.0p	N	Si	150J	TO106		A	
25	TE5369	250MΔ	40n		350n	360m	10	10	10m	75	8.0p	8.0p	N	Si	150J	TO106		A	
26	TE5370	250MΔ	40n		400n	360m	10	10	10m	150	8.0p	8.0p	N	Si	150J	TO106		A	
27	TE5371	250MΔ	40n		400n	360m	10	10	10m	40	8.0p	8.0p	N	Si	150J	TO106		A	
28#	2SC97	250M	50n		100n	150n	800m	10	10	150m	60	20p	N-PE	Si	175J	TO5		∅	
29#	96EP	250MΔ	50n			100n	250m	5.0	10	150m	30	10p	N-PET	Si	125J	u46		A	
30	FK3300	250MΔ	60n			150n	350m	10	10	150m	100	8.0p	N-PE	Si	300S	u17b		∅	
31	FT3641	250MΔ	60n			150n	3.0	10	500m	62	8.0p	8.0p	N-DPE	Si	125J	R124c		A	
32	FT3642	250MΔ	60n			150n	3.0	10	500m	62	8.0p	8.0p	N-DPE	Si	125J	R124c		A	
33	FT3643	250MΔ	60n			150n	3.0	10	500m	125	8.0p	8.0p	N-DPE	Si	125J	R124c		A	
34	FV3300	250MΔ	60n			150n	350m	10	10	150m	100	8.0p	N-PE	Si	300S	u5b		∅	
35	USAF522ES067M	250MΔ	60n			60n	350m	1.0	70m	15	6.4		N-PL	Si	200J	X34		∅	
36	USAF522ES075M	250MΔ	60n			60n	350m	1.0	70m	20	6.4		N-PL	Si	200J	X34		∅	
37	USAF523ES077M	250MΔ	60n			60n	350m	1.0	70m	15	6.4		N-PL	Si	200J	X34		∅	
38	USAF523ES078M	250MΔ	60n			60n	350m	1.0	70m	15	6.4		N-PL	Si	200J	X34		∅	
39	GI3638	250M	70n	20n	140n	70n	300m	1.0	50m	30		20p	P-E	Si	125	R97d		∅	
40	GI3638A	250M	70n	20n	140n	70n	300m	1.0	50m	100		10p	P-E	Si	125	R97d		∅	
41#	BFW71	250MΔ	100n			500n	1.5	10	100u	30		15p	N-DPL	Si	200J	TO18		A	
42#	ST501	270MΔ			25n	300m	1.0	10	10m	22			N-PE	Si		TO18		∅	
43#	ST502	270MΔ			25n	300m	1.0	10	10m	50			N-PE	Si		TO18		∅	
44	D32K1	275MΔ	25n	20n	70n	30n	500m	1.0	100m	50		8.0p	N	Si	150J	X55a		B	
45	D32K2	275MΔ	25n	20n	70n	30n	500m	1.0	100m	50		8.0p	N	Si	150J	X55a		B	
46#	BSW13	280MΔ	20n		20n	40n	160m	350m	10m	300	30	5.0p	NPE	Si	125J	u32		∅	
47#	MDS38	280MΔ	30n				50m	500m	10m	20		4.0p	P-MD	Ge		TO18		∅	
48	2N1992	300M			20n		350m	500m	1.0m	45	9.0	5.0p	N-E	Si	200J	TO18		∅	
49#	2S95A	300MΔ			25n	300m	350m	10m	200	20		6.0p	N-A	Si	200S	TO18		∅	
50#	2SC405	300M			65n	150m	300m	10m	40			5.0p	P-ME	Ge	100J	TO18		∅	
51#	ST02	300MΔ			200n	360m	1.0	10	10m	20		6.0p	N-PE	Si		TO18		∅	
52#	ST03	300MΔ			200n	360m	1.0	10	10m	20		6.0p	N-PE	Si		TO18		∅	
53#	ST04	300MΔ			200n	360m	1.0	10	10m	40		6.0p	N-PE	Si		TO18		∅	
54#	ST05	300MΔ			200n	360m	1.0	10	10m	100		6.0p	N-PE	Si		TO18		∅	
55#	ST51	300MΔ			130n	300m	350m	10m	40			6.0p	N-PL	Si		TO18		∅	
56#	ST55	300MΔ			25n	300m	1.0	10	10m	40		6.0p	N-PE	Si		TO18		∅	
57#	ST56	300MΔ			25n	300m	1.0	10	10m	40		6.0p	N-PE	Si		TO18		∅	
58#	ST57	300MΔ			25n	300m	500m	10m	40			6.0p	N-PE	Si		TO18		∅	
59#	ST63	300MΔ			16n	125m	350m	5.0m	40	#		5.0p	N-PE	Si		TO18		∅	
60	TIS45	300MΔ			25n	360m	1.0	10	10m	120	40	6.0p	P-E	Si	150J	TO92		∅	
61#	ZT190	300MΔ			150n	300m	400m	1.0m	30			6.0p	N-PL	Si	175A	TO18		∅	
62#	ZT191	300MΔ			300n	300m	400m	1.0m	30			10p	N-PL	Si	175A	TO18		∅	
63#	ZT192	300MΔ			200n	300m	400m	1.0m	30			6.0p	N-PL	Si	175A	TO18		∅	
64#	ZT193	300MΔ			200n	300m	400m	1.0m	50			6.0p	N-PL	Si	175A	TO18		∅	
65#	ZG104	300M	4.0n			150m	5.0	10	10m	40			P-ME	Ge	100J	TO18		∅	
66#	BLY37	300MΔ	5.0nt	20n	30n	13nt	100m	2.0	10	10m	54	3.5p	N-PE	Si	100J	MT59e		S	
67#	BSY37	300MΔ	5.0nt	20n	30n	13nt	100m	2.0	10	10m	54	3.5p	N-PE S	Si	100J	u18		∅	
68#	BSY39	300MΔ	5.0nt	20n	30n	13nt	100m	2.0	10	10m	54	3.5p	N-PE S	Si	100J	u19		∅	
69#	BSY36	300MΔ	5.0nt	20n	30n	14nt	100m	2.0	10	10m	34	3.5p	N-PE S	Si	100J	u18		∅	
70#	2SC82	300MΔ	8.0n	11n	55n	20n	360m	1.0	10m	3.0	45	6.0p	N-PL	Si	200J	TO18		∅	
71#	2SC340H	300M	12n	2.0n	8.0n	14n	12	4.0m	45				P	Ge	91J	TO3		∅	
72	A344	300MΔ	14n		16n	45n	300m	350m	10m	120	60	5.0p	N-PE	Si	175J	TO18		A	
73	A345	300MΔ	14n		16n	45n	300m	350m	10m	60	60	5.0p	N-PE	Si	175J	TO18		A	
74	A346	300MΔ	14n		16n	45n	300m	350m	10m	120	60	5.0p	N-PE	Si	175J	TO18		A	
75	JAN2N851	300MΔ	16n		40m	30m	350m	10m	20	Δ	35	5.0p	N	Si	300S	TO50		∅	
76	JAN2N852	300MΔ	16n		45n	30m	350m	10m	60	Δ	35	5.0p	N	Si	300S	TO50		∅	
77	FK3014	300MΔ	16n		25n	350m	400m	30m	30	Δ	3.5	5.0p	N-PE	Si	200S	u7b		∅	
78	FV3014A	300MΔ	16n		25n	350m	400m	30m	30	Δ	3.5	5.0p	N-PE	Si	200S	u5b		∅	
79	2N784A/46	300M	20n		15n	25n	360m	40	10m	25	40	3.5p	N-E	Si	200J	TO51		∅	
80	2N835/51	300MΔ	20n		35n	300m	1.0	10	10m	20	30	4.0p	N-E	Si	175J	TO51		∅	
81	2N2699	300MΔ	20n	25n	30n	50n	150m	1.0	50m	40	18		P	Ge	100J	TO18		A	
82#	2SC488H	300MΔ	20n		30n	30n	200m	1.0	10m	200		6.0p	N-PE	Si	175J	R92b		A	
83#	2SC488H	300MΔ	20n		30n	30n	200m												