

# 12. SWITCHING TRANSISTORS

IN ORDER OF (1) MAX RISE TIME, (2) fab & (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 @ 25°C (W)	BIAS			MAX. SAT. RES. (Ω)	Cob (F)	r <sub>bb</sub> X Cob (s)	STRUCTURE P-NPN N-NPN	M A T	MAX. TEMP (°C)	DWG # Y200 s/a T0200 Ser.	L C O D E
								Vcb (V)	le (A)	hFE								
1	2N2352A	50.0M\$	70n		150n	50n	400m	10	150m	60	1.6	20p	N-PE	Si	200J	T046	A	
2	2N2364	50.0M\$	70n	50n	500n	100n	400m	10	150m	120	2.3	15p	N-PE	Si	200J	T046	A	
3	2N2364A	50.0M\$Δ	70n	50n	500n	100n	400m	10	150m	120	1.6	15p	N-PE	Si	200J	T046	A	
4	A5T2192	50M\$Δ	70n		150n	50n	625m	10	150m	100	2.3	20p	N	Si	150S	R203	A	
5	A5T2193	50M\$Δ	70n		150n	50n	625m	10	150m	40	1.7	20p	N	Si	150S	R203	A	
6#	BSY46	50.0M\$	70n		150n	50n	800m	10	150m	80	#	20p	N-PE	Si	200J	T05	A	
7	MM2193A	50M\$Δ	70n		150n	50n	5.0	10	100m	15	1.6	20p	N-AN	Si	200J	T039	A	
8	2N4036	60M\$Δ	70n		600n	100n	7.0	10	150m	40	4.3m		P	Si	200J	T05	A	
9#	BFR23	60M\$Δ	70n	110n	600n	100n	7.0	10	500m	20		30p	P	Si	200J	T039	A	
10	2N770	75M\$Δ	70n		20n	40n	150m	1.0	10m	60	2.5	3.5p	N	Si	150S	T018	A	
11	2N772	75M\$Δ	70n		40n	70n	150m	5.0	20m	20	2.5	3.5p	N	Si	150S	T018	A	
12	2N3638	100M\$Δ	70n	20n	140n	70n	700m	1.0	50m	30	#	20p	P	Si	125J	R110a	A	
13	2N5142	100M\$Δ	70n	50n	150n	75n	700m	1.0	50m	30	#	10p	P	Si	125J	T0105	A	
14	2N5143	100M\$Δ	70n	50n	150n	75n	500m	1.0	50m	30	#	10p	P	Si	125J	T0106	A	
15#	A5T3638	100M\$Δ	70n	20n	140n	70n	625m	1.0	50m	30	Δ	20p	P	Si	150S	R203	A	
16	MPS3638	100M\$Δ	70n		70n	70n	310m	1.0	50m	30	Δ	20p	P-EA	Si	135	T092	A	
17	MPS3638#	100M\$	70n	20n	140n	70n	700m	10	10m	20	#	10p	P1PE	Si	150S	T092	A	
18	MPS3638A#	100M\$	70n	20n	140n	70n	700m	10	10m	100	#	10p	P1PE	Si	150S	T092	A	
19#	MPS3638K	100M\$Δ	70n	20n	140n	70n	1.2	10	10m	20	#	5.0	PPL	Si	175A	X167	A	
20#	MPS3638L	100M\$Δ	70n	20n	140n	70n	1.2	10	10m	20	#	5.0	PPL	Si	175A	X168	A	
21#	MPS3638M	100M\$Δ	70n	20n	140n	70n	1.2	10	10m	20	#	5.0	PPL	Si	175A	X169	A	
22	TP3638	100M\$Δ	70n	20n	140n	70n	360m	10	10m	20	#	20p	P-PL	Si	150J	R203a	A	
23	TP5142	100M	70n	50n	150n	75n	625m	1.0	50m	30	Δ	10p	P	Si	200J	T092	A	
24	2N1199	140M\$	70n		20n	40n	150m	1.0	20m	25		3.5p	N-DA	Ge	150S	T09	A	
25	2N1472	140M\$	70n		40n	70n	150m	5.0	10m	35	25	3.5p	N-DA	Ge	150S	T09	A	
26#	2SC1816	140M\$	70n	40n	60n	70n	1.3	2.0	100m	100	*	400m	N-ME	Si	120J	Y220b	D	
27#	2SC1816H	140M\$	70n	40n	60n	70n	1.7	2.0	100m	100	*	400m	N-ME	Si	120J	Y220b	D	
28	2N3638A	150M\$Δ	70n	20n	140n	70n	700m	10	10m	80	Δ	10p	P	Si	125J	R110a	A	
29#	A5T3638A	150M\$Δ	70n	20n	140n	70n	625m	1.0	50m	100	Δ	3.3	10p	P	Si	150S	R203	A
30	MPS3638A	150M\$Δ	70n	20n	140n	70n	310m	1.0	50m	100	Δ	10p	P-EA	Si	135	T092	A	
31#	MPS3638AK	150M\$Δ	70n	20n	140n	70n	1.2	10	10m	100	#	5.0	PPL	Si	175A	X167	A	
32#	MPS3638AL	150M\$Δ	70n	20n	140n	70n	1.2	10	10m	100	#	5.0	PPL	Si	175A	X168	A	
33#	MPS3638AM	150M\$Δ	70n	20n	140n	70n	1.2	10	10m	100	#	5.0	PPL	Si	175A	X169	A	
34	TP3638A	150M\$Δ	70n	20n	140n	70n	360m	10	10m	100	#	10p	P-PL	Si	150J	R203a	A	
35	2N4452	200M\$Δ	70n	25n	140n	70n	3	10	10m	120	Δ	8p	P	Si	200J	T046	A	
36#	2SC715	200M\$	70n		170n	60n	125m	6.0	10m	80		3.0p	N-PE	Si	125J	R145	D	
37#	BFY72	250M\$Δ	70n		170n	30	3.0	10	10m	85		8.0p	N-DPE	Si	200J	T05	A	
38	2N828	300M\$Δ	70n		50n	50n	300m	.30	10m	25	Δ	20	P	Ge	100J	T018	A	
39	2N3723	300M\$Δ	70n	15n	110n	50n	800m	1.0	100m	40	#	9.0p	N	Si	200J	T05	A	
40	2N5141	300M\$Δ	70n	45n	100n	70n	500m	2.0	10m	25	#	7p	P	Si	125J	T0106	A	
41#	2SC423	500M\$	70n		120n	60n	500m	5.0	20m	80		5.0p	N-PE	Si	175J	T039	A	
42#	2SC933	500M\$	70n		120n	60n	300m	5.0	20m	150			N-PE	Si	125J	T092	B	
43#	2SC934	500M\$	70n		120n	60n	200m	5.0	20m	80			N-PE	Si	125J	T0104	A	
44#	2SA711	800M\$Δ	70n		130n	170n	300m	1.0	10m	70	Δ	4.0p	P-E	Si	150J	T018	A	
45	2N2930	4.0M\$Δ	73n	350n	73n	250m	.60	100m	50	Δ	2.5	20p	P	Ge	100S	T05	A	
46	2N695	75n	100n		100n	100n	75m	300m	10m	25	Δ	2.0	P	Ge	100J	T017	G	
47	JAN2N695	75n	100n		100n	100n	150m	300m	10m	25	Δ	2.0	P	Ge	100J	T017	G	
48	JAN2N705	75n	100n		100n	100n	150m	300m	10m	10	Δ		P	Ge	100J	T018	A	
49	2N705A	75n	50n		75n	75n	150m	300m	10m	25	Δ	30	P	Ge	100J	T018	A	
50	2N710A	75n	50n		75n	75n	50m	500m	10m	25	Δ	50	P	Ge	100S	T018	A	
51	2N782	75n	35n		75n	75n	300m	.25	10m	20	Δ	2.0	P	Ge	100J	T018	A	
52	2N5019	75n	15n	100n		170n	1.8	10	2.0m	1.0	Δ	150	P	Si	200J	T018	DA	
53	MEM562C	75n	55n		100n	170n	500m	.15	2.0m	350	\$	3.0p	N*	Si	100J	T072	DR	
54	P1087E	75n	15n		100n	100n	350m					45p	P	Si	125J	R97b	DB	
55	P1087RR	75n	15n		100n	75n	300m					45p	P	Si	150S	T092	DF	
56	ETP2008	20M\$Δ	75n		75n	800m	50	5.0m	65	t	150	*	N-PL	Si	175J	T05	A	
57	2N865	24M\$Δ	75n		100n	75n	150m	500m	5.0m	45	Δ	2.0	P	Si	140S	T018	A	
58#	2SC1636	30M\$	75n	30n	600n	130n	300m	3.0	1.0m	2.0k	7.5	4.0p	N-E	Si	120J	X153	B	
59	2N2695	100M\$Δ	75n		170n	360m	360m	1.0	50m	30	t	3.0	P-E	Si	200J	T046	A	
60	2N2696	100M\$Δ	75n		170n	360m	360m	1.0	50m	30	t	3.0	P-E	Si	200J	T018	A	
61	2N2927	100M\$Δ	75n		170n	30	3.0	1.0	50m	30	t	5.0	P	Si	200J	T05	A	
62#	BD124	120M\$	75n	15n	240n	40n	15	5.0	500m	75		500m	N-PE	Si	175J	F9b	C	
63	2N2400	150M\$Δ	75n	140n	130n	150m	.50	10	10m	30	Δ	4.0p	P	Ge	100S	T018	A	
64	2N2401	200M\$Δ	75n	120n	110n	150m	.50	10	50m	40	Δ	4.0p	P	Ge	100S	T018	A	
65	2N3133	200M\$Δ	75n		150n	600m	10	150m	120	100		10p	P	Si	200S	T05	A	
66	2N3134	200M\$Δ	75n		150n	600m	10	150m	300	100		10p	P	Si	200S	T05	A	
67	2N3135	200M\$Δ	75n		150n	400m	10	150m	120	100		10p	P	Si	200S	T018	A	
68	2N3136	200M\$Δ	75n		150n	400m	10	150m	300	100		10p	P	Si	200S	T018	A	
69	TP3135	200M	75n		150n	400m	.50	150m	40			10p	N	Si	200S	T092	A	
70	TP3136	200M	75n		150n	400m	.50	150m	100			10p	N	Si	200S	T092	A	
71	2N2402	250M\$Δ	75n	100n	100n	150m	.50	50m	50	Δ	20	4.0p	P	Ge	100S	T018	A	
72	2N2958	250M\$Δ	75n	20n	300n	200n	3.0	10	150m	120		8.0p	N	Si	200S	T05	A	
73	2N2959	250M\$Δ	75n	20n	300n	200n	3.0	10	150m	300		8.0p	N	Si	200S	T05	A	
74	2N2960	250M\$Δ	75n	20n	300n	200n	3.0	10	1.0m	50	Δ	8.0p	N	Si	200S	T05	A	
75	2N2961	250M\$Δ	75n	20n	300n	200n	3.0	10	500m	30	#	8.0p	N	Si	200S	T05	A	
76	2N3115	250M\$Δ	75n	20n	300n	200n	400m	10	150m	40	Δ	8.0p	N	Si	175J	T018	A	
77	2N3116	250M\$Δ	75n	20n	300n	200n	400m	10	150m	100	Δ	8.0p	N	Si	175J	T018	A	
78	JAN2N2481	300M\$Δ	75n	20n	45n	360m	1.0	10m	120	100		25	5.0p	N	Si	200J	T018	A
79	SDT6110	350M\$Δ	75n		75n	10	5.0	5.0	10	Δ	#	25p	N	Si	200J	T05	A	
80	SDT6111	350M\$Δ	75n		75n	10	5.0	5.0	10	Δ	#	25p	N	Si	200J	T05	A	
81	SDT6112	350M\$Δ	75n		75n	10	5.0	5.0	10	Δ	#	25p	N	Si	200J	T05	A	
82	SDT6113	350M\$Δ	75n		75n	23	5.0	5.0	10	Δ	#	25p	N	Si	200J	T060	A	
83	SDT6114	350M\$Δ	75n		75n	23	5.0	5.0	10	Δ	#	25p	N	Si	200J	T060	A	
84	SDT6115	350M\$Δ	75n		75n	23	5.0	5.0	10	Δ	#							