

12. SWITCHING TRANSISTORS

IN ORDER OF (1) MAX RISE TIME, (2) fab &
(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. P _c IN FREE AIR @ 25°C (W)	BIAS			MAX. SAT. RES. (Ω)	Cob (F)	r _{bb} X Cob (s)	STRUCTURE P-N-P N-N-P	MAX. TEMP (°C)	DWG # Y200 s/a TO200 Ser.	L C O D E
								Vcb (V)	I _e (A)	hFE							
1#	BSS87R#	300MΔ	35n	35n	200n	50n	200m	1.0	50m	80	2.0	4.0p	N	175J	X136a	B	
2#	EN3904	300MΔ	35n	35n	200n	50n	700m	1.0	10m	100	20	4.0p	N-DPE	155J	TO106	A	
3#	FMMT3904	300MΔ	35n	35n	200n	50n	200m	1.0	10m	70	20	4.0p	N-PLT	175A	X156d	A	
4#	GES2222A	300MΔ	35n	35n	200n	50n	285m	1.0	15m	300	2.0	8.0p	N-PE	150S	TO122	A	
5#	LDS203	300MΔ	35n	35n	200n	50n	380m	1.0	100m	80	6.0p	150p	FE	150J	TO152	A	
6#	MM3904	300MΔ	35n	35n	200n	50n	360m	1.0	100m	70	5.0p	150p	N-AN	200J	TO52	A	
7#	MPS3725	300MΔ	35n	35n	200n	50n	360m	1.5	100m	80	10p	150p	N-ANT	150J	TO52	A	
8#	NS3904	300MΔ	35n	35n	200n	50n	360m	1.0	100m	100	4.0p	150p	N-E	150J	TO152	A	
9#	NTM3904	300MΔ	35n	35n	200n	50n	200m	1.0	100m	100	4.0p	150p	N-E	150J	X156b	A	
10#	PN3251	300MΔ	35n	35n	200n	50n	625m	1.0	10m	300	6.0p	150p	P-DPE	150J	TO52	A	
11#	PN3251A	300MΔ	35n	35n	200n	50n	500m	1.0	10m	300	6.0p	150p	NDPE	150J	TO52	A	
12#	PN3947	300MΔ	35n	35n	200n	50n	500m	1.0	10m	300	4.0p	150p	NDPE	150J	TO52	A	
13#	ZTX3804	300MΔ	35n	35n	200n	50n	500m	1.0	10m	100	4.0p	150p	N-PLT	175J	B58	A	
14#	2N1204	320MΔ	35n	35n	200n	50n	200m	1.5	400m	15	2.5	7.0p	N-PLT	100S	TO39	A	
15#	2N1494	320MΔ	35n	35n	200n	50n	400m	1.5	400m	15	2.5	7.0p	P-AD	100S	TO31	A	
16#	2N833	350MΔ	35n	25n	125n	75n	300m	1.0	10m	25	25	4.0p	N-PE	175J	TO15	A	
17#	2N4349	350MΔ	35n	20n	10n	45n	70m	1.0	10m	25	500m	4.0p	N	100J	TO15	A	
18#	40220	350MΔ	35n	20n	10n	45n	70m	1.0	10m	25	500m	4.0p	N-PE	175	TO52	A	
19#	2N6013	360MΔ	35n	10n	45n	75n	10m	1.0	10m	250	8.0	15p	P	150J	R203a	A	
20#	2N6017	360MΔ	35n	10n	45n	75n	10m	1.0	10m	250	8.0	15p	P	150J	R203a	A	
21#	2SA153	400MΔ	35n	10n	225n	225n	600m	-2	5	50	5.0p	15p	PE	150J	TO92	A	
22#	2SC2720	400MΔ	35n	225n	275n	600m	100m	1.0	150m	150	3.5p	15p	NE	150J	TO93	B	
23#	B5C26	400MΔ	35n	60n	60n	360m	100m	1.0	100m	40	4.8p	15p	N	200J	TO18	A	
24#	BSY77	400MΔ	35n	60n	60n	360m	100m	1.0	100m	60	4.8p	15p	N	200J	TO39	A	
25#	BSY95	400MΔ	35n	60n	60n	360m	100m	1.0	100m	20	4.8p	15p	N	200J	TO39	A	
26#	BSY58	400MΔ	35n	60n	60n	360m	100m	1.0	100m	42	30	4.5p	N-DPE	200J	TO39	A	
27#	MM3734	400MΔ	35n	60n	60n	360m	2.6	1.5	100m	35	25	15p	N-AN	200J	TO39	A	
28#	MM3735	400MΔ	35n	60n	60n	360m	4.0	1.5	100m	35	25	15p	N-AN	200J	TO39	A	
29#	BSX58	475MΔ	35n	60n	60n	360m	800m	1.0	150m	70	25	10p	N-PE	200J	TO5	A	
30#	JAN2N3253	500MΔ	35n	15n	40n	30n	5.0	5.0	1.0	20	1.2	12p	N-E	200S	TO5	A	
31#	JAN2N3253S	500MΔ	35n	15n	40n	30n	5.0	5.0	1.0	20	1.2	12p	N-E	200S	TO5	A	
32#	JAN2N3444	500MΔ	35n	15n	40n	30n	5.0	5.0	1.0	15	1.2	12p	N-E	200S	TO5	A	
33#	JAN2N3444S	500MΔ	35n	15n	40n	30n	5.0	5.0	1.0	15	1.2	12p	N-E	200S	TO5	A	
34#	2N285	600MΔ	35n	25n	75n	360m	100m	1.0	10m	50	2.6p	15p	N-PE	300	TO18	A	
35#	JAN2N3762	600MΔ	35n	80n	35n	1.0	100m	1.0	10m	35	1.0	15p	P	200J	TO5	A	
36#	JAN2N3763	600MΔ	35n	80n	35n	1.0	100m	1.0	10m	35	1.0	15p	P	200J	TO5	A	
37#	JAN2N3764	600MΔ	35n	80n	35n	1.0	500m	1.0	10m	35	1.0	15p	P	200J	TO46	A	
38#	JAN2N3765	600MΔ	35n	80n	35n	1.0	500m	1.0	10m	35	1.0	15p	P	200J	TO46	A	
39#	JAN2N3250A	900MΔ	35n	35n	175n	50n	1.2	1.0	10m	50	25	6.0p	P	200S	TO18	A	
40#	JAN2N3250A	900MΔ	35n	35n	200n	50n	1.2	1.0	10m	100	25	6.0p	P	200S	TO18	A	
41#	2N543	250MΔ	37n	5.0n	50n	35n	5.0	1.0	50m	30	16p	15p	N	200S	TO39	A	
42#	2N541A	250MΔ	37n	5.0n	60n	35n	5.0	1.0	50m	30	16p	15p	N	200S	TO39	A	
43#	2N3862	600MΔ	37n	39n	25n	25n	360m	1.0	10m	50	25	4.0p	N	200A	TO18	A	
44#	2N3972	600MΔ	40n	40n	100n	1.8	360m	1.0	10m	100	100	16p	N	200S	TO18	DB	
45#	JAN2N4093	40n	40n	40n	80n	360m	1.8	100m	170	16p	15p	N-PLT	175A	TO18	DB		
46#	2N4093A	40n	20n	20n	80n	360m	1.8	100m	170	16p	15p	N	200S	TO18	DB		
47#	2N5189	40n	40n	40n	70n	1.0	100m	1.0	10m	15	1.0	15p	N	200S	R179q	A	
48#	2SC1072	40n	40n	50n	60n	800m	1.0	500m	35	35	12p	N-PE	175J	R179n	A		
49#	2SC1072A	40n	40n	50n	60n	800m	1.0	500m	35	35	3.0p	N-PE	175J	R179n	A		
50#	2SC1385H	40n	40n	50n	60n	800m	1.2	500m	20	20	12p	N-PE	175J	TO39	A		
51#	3N177	40n	35n	60n	150n	225m	500m	1.0	10m	500	7.0p	30p	NMOS	200S	TO72	DR	
52#	3N183	40n	40n	160n	180n	500m	500m	1.0	10m	75	7.5	30p	NMOS	200S	TO72	DM	
53#	BFV51	40n	40n	50n	150m	100m	100m	1.0	500m	20	3.3	8.0p	NPE	200J	S5a	P	
54#	BFV53	40n	40n	50n	150m	100m	100m	1.0	500m	20	3.3	8.0p	NPE	200J	S5a	P	
55#	BFX30	40n	15n	250n	50n	600m	4.0	-10m	50	50	80	16p	P-PE	200J	TO39	A	
56#	J4093	40n	20n	80n	350m	1.8	350m	1.0	10m	80	80	16p	N	150S	TO92	DE	
57#	MFE2004	40n	20n	20n	80n	350m	1.8	350m	1.0	10m	80	16p	N	175J	TO18	DB	
58#	MPS3644K	40n	40n	40n	100n	1.2	100m	1.0	100m	170	5.0	10p	PPL	175A	X167	A	
59#	MPS3644L	40n	40n	40n	100n	1.2	100m	1.0	100m	170	5.0	10p	PPL	175A	X168	A	
60#	MPS3644M	40n	40n	40n	100n	1.2	100m	1.0	100m	170	5.0	10p	PPL	175A	X169	A	
61#	MPS3644S	40n	40n	40n	100n	1.2	100m	1.0	100m	170	5.0	10p	PPL	175A	X167	A	
62#	MPS3645K	40n	40n	40n	100n	1.2	100m	1.0	100m	170	5.0	10p	PPL	175A	X168	A	
63#	MPS3645M	40n	40n	40n	100n	1.2	100m	1.0	100m	170	5.0	10p	PPL	175A	X169	A	
64#	U1899E	40n	20n	20n	80n	350m	1.8	350m	1.0	10m	80	16p	N	125J	R97b	DB	
65#	BFX84	50MΔ	40n	15n	300n	60n	800m	1.0	150m	30	1.0	12p	N-PE	200J	TO39	A	
66#	BFX85	50MΔ	40n	15n	300n	60n	800m	1.0	150m	70	1.0	12p	N-PE	200J	TO39	A	
67#	BFX86	50MΔ	40n	15n	300n	60n	800m	1.0	150m	70	1.0	12p	N-PE	200J	TO39	A	
68#	BFY51	50.0MΔ	40n	15n	300n	60n	5.0	10m	85	1.6	12p	N-PE	200J	TO5	A		
69#	BFY52	50.0MΔ	40n	15n	300n	60n	5.0	10m	90	1.6	12p	N-PE	200J	TO5	A		
70#	ZSC849	60.0MΔ	40n	500n	60n	500m	4.0	10m	160	2.5	8.0p	N	175J	TO18	A		
71#	BFY50	60.0MΔ	40n	300n	60n	5.0	5.0	10m	80	1.0	12p	N-PE	200J	TO5	A		
72#	2N771	100MΔ	40n	25n	40n	150m	1.0	20m	30	2.5	3.5p	N	150S	TO18	A		
73#	2N1663	100MΔ	40n	25n	40n	150m	1.0	20m	150	2.5	3.5p	N	150S	TO9	A		
74#	2N3883	100MΔ	40n	15n	70n	40n	300m	1.0	200m	30	2.5	8.0p	P	100S	TO5	A	
75#	ZSC366G	100MΔ	40n	15n	25n	30n	400m	1.0	100m	240	5.0	10p	N-E	125J	TO92	A	
76#	BCX26	100MΔ	40n	20n	450n	100n	1.0	5.0	10m	160	2.5	8.0p	PAN	150J	R210a	F	
77#	BCX28	100MΔ	40n	20n	450n	100n	1.0	5.0	10m	160	2.5	8.0p	PAN	150J	R210a	F	
78#	BCX30	100MΔ	40n	20n	450n	100n	1.0	5.0	10m	160	2.5	8.0p	PAN	150J	R210a	F	
79#	BSS42	100MΔ	40n	40n	700n	5.0	5.0	1.0	45	6.0	10p	N-PE	200J	TO39	A		
80#	BSX36	100MΔ	40n	40n	100n	1.2	100m	1.0	10m	40	6.0	8.0p	PAN	200J	TO18	A	
81#	XGS7001	120MΔ	40n	40n	100n	5.0	2.0	2.0	20	1.0	40p	N	200J	TO39	A		
82#	XGS7002	120MΔ	40n	40n	100n	5.0	2.0	2.0	15	1.0	40p	N	200J	TO39	A		
83#	2N3072	130MΔ	40n	100n	100n	3.0	1.0	50m	30	5.0	10p	P	200J	TO5	A		
84#	2N3073	130MΔ	40n	100n	100n	3.0	1.0	50m	30	5.0	10p	P	200J	TO18	A		
85#	2N3120	130MΔ	40n	100n	100n	3.0	1.0	50m									