

# 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 <sub>c</sub> 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 O C A D E	
								Vcb (V)	Ic (A)	hFE									
1#	BU209	7.0M\$			10u	700n	12 Δ	5.0 Δ	3.0 Δ	2.2 Δ	1.6	125p\$		N	Si	115J	T03	CØ	
2	BU209A	7.0M\$			10u	70u	12	5.0 Δ	3.0 Δ	2.2 Δ				N	Si	115	T03	AØ	
3	BUV23	8.0M\$		1.3 Ø	2.5u	1.2u	250							ND	Si		T03		
4#	BUV23	8.0M\$		1.6 Ø	3u	1.4u	250	4.0 Ø	6.0 Ø	15 Δ				N	Si	200J	T03	A	
5	BUV25	8.0M\$		1.8	5.0u	1.8u	250							ND	Si		T03		
6#	BUX11Ø	8.0M\$		1.5 Ø		400n	150	4.0 Ø	6.0 Ø	20 Δ#				N-E	Si	200J	T03	CØ	
7#	BUX11NØ	8.0M\$		1.5 Ø	1.5u	500n	150	4.0 Ø	15 Ø	10 Δ#				N-E	Si	200J	T03	CØ	
8#	BUX12Ø	8.0M\$		1.0 Ø	2.0u	500n	150	4.0 Ø	5.0	20 Δ#				N-E	Si	200J	T03	CØ	
9#	BUX13Ø	8.0M\$		1.2 Ø	2.5u	1.0u	150	4.0 Ø	4.0	15 Δ#				N-E	Si	200J	T03	CØ	
10#	BUX14Ø	8.0M\$		1.4 Ø	3.0u	1.2u	150	4.0 Ø	3.0	15 Δ#				N	Si	200J	T03	CØ	
11#	BUX39Ø	8.0M\$		1.5u	1.0u	300n	120	4.0 Ø	12	15 Δ#				N-E	Si	100J	T03	CØ	
12#	BUX41Ø	8.0M\$		1.3 Ø	1.7u	800n	120	4.0 Ø	5.0	15 Δ#				N-E	Si	200J	T03	CØ	
13#	BUX41NØ	8.0M\$		1.3 Ø	1.5u	800n	120	4.0 Ø	8.0	15 Δ#				N-E	Si	200J	T03	CØ	
14#	BUX42Ø	8.0M\$		1.0 Ø	2.0u	1.2u	120	4.0 Ø	4.0	15 Δ#				N-E	Si	200J	T03	CØ	
15#	BUX43Ø	8.0M\$		1.0 Ø	2.2u	1.2u	120	4.0 Ø	3.0	15 Δ#				N	Si	200J	T03	CØ	
16#	BUX44Ø	8.0M\$		1.0 Ø	2.5u	1.2u	120	4.0 Ø	2.0	15 Δ#				N-E	Si	200J	T03	CØ	
17#	BUX45Ø	8.0M\$		1.0 Ø	5.0u	1.2u	120	4.0 Ø	1.0	15 Δ#				N-E	Si	200J	T03	CØ	
18	BU104D	10M\$				0.8u	85		7.0 Ø	7 Δ				D	Si		T03		
19	BU109D	10M\$				0.8u	85		7.0 Ø	7 Δ				D	Si		T03		
20#	2SA1024H	15M\$					400m	20 Ø	20m	200 Ø*		10pØ		P	Si	150J	T018	A	
21#	2SA126H	15M\$					750m	20 Ø	20m	200 Ø*		25pØ		P	Si	150J	T039	A	
22#	2SC2635H	15M\$					750m	20 Ø	20m	200 Ø*		25pØ		P	Si	150J	T039	A	
23#	AU103	15.0M\$			3.0u	1.7u	10m+Ø	1.0 Ø	10 Ø	15	70			N	PDA	Ge	90J	T03	CØ
24#	2SC2939	20M\$		1.0uØ	2.0u	0.5u	100	2.0 Ø	5.0 Ø	10				N	Si	150J	T03	A	
25#	BUX85	20M\$		3.5u	4.0u	4.0 Ø	40	5.0 Ø	1.0 Ø	50				N	Si	150J	Y220	BØ	
26#	BDY57A	30M\$		1.0uØ	2.0uØ	2.0uØ	175	4.0 Ø	2.0 Ø	15 #				N	Si	200J	y204a	C	
27	BDY58R	48M\$		1.0uØ	2.0uØ	2.0uØ	175	4.0 Ø	2.0 Ø	20 #				N	Si	200J	y204a	C	
28#	BFP22	60M\$					1.0m	10 Ø	50m	30 Δ				P-PE	Si	150J	T092	D	
29#	BFP23	60M\$					830m	20 Ø	25m	30 Δ				N-PE	Si	150J	T092	D	
30	TSQ-3467D/C	125M\$		40nØ	90nØ		2.7		500m	20 Δ		25pØ		P	Si	200J	T0116		
31	TSQ-3467F/C	125M\$		40nØ	90nØ		2.7		500m	20 Δ		25pØ		P	Si	200J	T086		
32#	BC190A	150M\$					300m	5.0 Ø	2.0m	240 Ø		6.0pØ		N	Si		T018		
33#	BC190B	150M\$					300m	5.0 Ø	2.0m	450 Ø		6.0pØ		N	Si		T018		
34#	TSQ-3762D/C	150M\$		40nØ	110nØ		5.0	2.0 Ø	1.0 Ø	20 Δ		20pØ		P	Si	200J	T0116		
35	TSQ-3762F/C	150M\$		40nØ	110nØ		5.0	2.0 Ø	1.0 Ø	20 Δ		20pØ		P	Si	200J	T086		
36	BSR15	200M\$					200m		150m	100 Δ				P	Si	150J	T0236	A	
37	BSR16	200M\$					200m		150m	100 Δ				P	Si	150J	T0236	A	
38	SO2906	200M\$			175nØ		250m		150m	40 Δ		8.0pØ		P	Si	150J	T0236	A	
39	SO2906A	200M\$			175nØ		250m		150m	40 Δ		8.0pØ		P	Si	150J	T0236	A	
40	SO2906R	200M\$			175nØ		250m		150m	40 Δ		8.0pØ		P	Si	150J	T0236	A	
41	SO2907	200M\$			200nØ		250m		150m	100 Δ		8.0pØ		P	Si	150J	T0236	A	
42	SO2907A	200M\$			200nØ		250m		150m	100 Δ		8.0pØ		P	Si	150J	T0236	A	
43	SO2907R	200M\$			200nØ		250m		150m	100 Δ		8.0pØ		P	Si	150J	T0236	C	
44	TS-1134	200M\$		25nØ	250nØ		1.9	10 Ø	500m	30 Δ#		8.0pØ		N	Si	200J	T0116		
45	TSQ-2222F/C	200M\$		25nØ	250nØ		1.9	10 Ø	500m	30 Δ#		8.0pØ		N	Si	200J	T086		
46	TSQ-2907D/C	200M\$		30nØ	100nØ		1.9	10 Ø	300m	50 Δ#		8.0pØ		P	Si	200J	T0116		
47	TSQ-2907F/C	200M\$		30nØ	100nØ		1.9	10 Ø	300m	50 Δ#		8.0pØ		P	Si	200J	T086		
48#	ZTX310	200M\$			60n		300m	1.0 Ø	10m	20 Δ	60	6.0pØ		N-PL	Si	175S	B58	A	
49#	ZTX310K	200M\$			60n		300m	1.0 Ø	10m	20 Δ		6.0p		N-PL	Si	175S	B58	A	
50#	ZTX310L	200M\$			60n		300m	1.0 Ø	10m	20 Δ		6.0p		N-PL	Si	175S	B58	A	
51#	ZTX310M	200M\$			60n		300m	1.0 Ø	10m	20 Δ		6.0p		N-PL	Si	175S	B58	A	
52#	ZTX311	200M\$			25n		300m	.35 Ø	10m	200 Ø		6.0pØ		N-PL	Si	175S	B58	A	
53#	ZTX311K	200M\$			25n		300m	.35 Ø	10m	50 Δ		6.0p		N-PL	Si	175S	B58	A	
54#	ZTX311L	200M\$			25n		300m	.35 Ø	10m	50 Δ		6.0p		N-PL	Si	175S	B58	A	
55#	ZTX311M	200M\$			25n		300m	.35 Ø	10m	50 Δ		6.0p		N-PL	Si	175S	B58	A	
56	BFY16S	240M\$		45nØ	70nØ		800m	1.0 Ø	500m	50 #		20pØ		N	Si	175J	T039	AØ	
57	BLY11S	240M\$		45nØ	70nØ		4.0	1.0 Ø	500m	50 #		20pØ		N	Si	175J	T03	DØ	
58	BSY24S	240M\$		45nØ	70nØ		800m	5.0 Ø	1.0 Ø	60 #		20pØ		N	Si	175J	T039	AØ	
59	BUY10S	240M\$		45nØ	70nØ		4.0	5.0 Ø	1.0 Ø	60 #		20pØ		N	Si	175J	T03	DØ	
60	BSR13	250M\$					200m		150m	100 Δ				N	Si	150J	T0236	AØ	
61#	BSX76	250M\$			50n		300m	400mØ	1.0m	64 Ø		8.0pØ		PL	Si	175J	T018	AØ	
62	SO2221	250M\$					250m		150m	40 Δ		8.0pØ		N	Si	150J	T0236	A	
63	SO2221A	250M\$			285nØ		250m		150m	40 Δ		8.0pØ		N	Si	150J	T0236	A	
64	SO2221R	250M\$					250m		150m	40 Δ		8.0pØ		N	Si	150J	T0236	A	
65	SO2222	250M\$					250m		150m	100 Δ		8.0pØ		N	Si	150J	T0236	A	
66	SO2222R	250M\$					250m		150m	100 Δ		8.0pØ		N	Si	150J	T0236	A	
67	TSQ-3725D/C	250M\$		45nØ	75nØ		5.0	2.0 Ø	500m	30 Δ		10pØ		N	Si	200J	T0116		
68	TSQ-3725F/C	250M\$		45nØ	75nØ		5.0	2.0 Ø	500m	30 Δ		10pØ		N	Si	200J	T086		
69	2N1992	300M\$			20n		350m	500mØ	1.0m	45 †	9.0	5.0pØ		N-E	Si	200J	T018	Ø	
70#	2S95A	300M\$			25n		300m	350mØ	10m	200 Ø		6.0pØ		N-A	Si	200S	T018	Ø	
71	9021	300M\$		30nØ	25nØ		250m	1.0 Ø	10m	30 Δ		6.0pØ		N	Si		T0106		
72	9022	300M\$		50nØ	70nØ		250m	1.0 Ø	10m	30 Δ		6.0pØ		N	Si		T0106		
73	BSR14	300M\$					200m		150m	100 Δ				N	Si	150J	T0236	A	
74	SO2222A	300M\$					250m		150m	100 Δ		8.0pØ		N	Si	150J	T0236	A	
75#	V763	300M\$		140uØ		300uØ	400m	1.0 Ø	50m	100		6.0p		P-PL	Si	200	T018	A	
76	9001	400M\$		12nØ	18nØ		250m	1.0 Ø	10m	40 Δ		4.0pØ		N	Si		T0106		
77	9002	400M\$		15nØ	20nØ		250m	1.0 Ø	10m	30 Δ		4.0pØ		N	Si		T0106		
78	9003	400M\$		15nØ	20nØ		250m	5.0 Ø	10m	25 Δ		4.0pØ		N	Si		T0106		
79	SO2894	400M\$			90nØ		200m		30m	40		6.0pØ		P	Si	150J	T0236	A	
80	SO2894R	400M\$			90nØ		200m		30m	40		6.0pØ		P	Si	150J	T0236	A	
81#	ZTX312K	400M\$		15nØ	13n	7.0n	300m	1.0 Ø	10m	40 Δ		4.0p		N-PL	Si	175S	B58	A	
82#	ZTX312L	400M\$		15nØ	13n	7.0n	300m	1.0 Ø	10m	40 Δ		4.0p		N-PL	Si	175S	B58	A	
83#	ZTX312M	400M\$		15nØ	13n	7.0n	300m	1.0 Ø	10m	40 Δ		4.0pØ		N-PL	Si	150J	T0236	A	
84	SO2369	500M\$			18nØ		200m		10m	40		4.0pØ		N	Si	150J	T0236	C	
85	SO2369R	500M\$			18nØ		200m		10m	40		4.0pØ		N	Si	150J	T0236	C	
86	ST6110	500M\$			10n		300m	500mØ	10m	20	117	4.0p		N-PE	Si	200J	T018		
87#	ZTX313K	500M\$		12nØ	13n	5.0n	300m	1.0											