

# 11. SILICON NPN - HIGH POWER TRANSISTORS

IN ORDER OF (1) MIN. DERATING FACTOR  
& (2) TYPE No.

LINE No.	TYPE No.	1 MIN. DERATE J to C (W/C)	MAX FREE AIR @ 25°C (W)	PC	M A E X M P	ABSOLUTE MAX. RATINGS @ 25°C					MAX. V <sub>cb</sub> @ 25°C (A)		BIAS (V)		MIN	MAX	f <sub>ae</sub> (Hz)	MAX. SAT. RES. (Ω)	tr (s)	STRUC-TURE	DWG #	L C O A D E
						I <sub>c</sub> (A)	I <sub>b</sub> (A)	V <sub>cb0</sub> (V)	V <sub>be0</sub> (V)	V <sub>ce0</sub> (V)	I <sub>cb0</sub> (A)	V <sub>cb</sub> (V)	I <sub>c</sub> (A)									
1	2N5016	200m	30	∅	SJ	4.5	1.5	65	4.0	30	1.0m	4.0	4.5	3.0	120 #	50M $\Delta$		300n		T060	A	
2	2N50831	200m	35	∅	SJ	10	2.0	120	6.0	60	1.0m	2.0	2.0	40	300 #	80M $\Delta$		300n		T059	C	
3	2N50841	200m	35	∅	SJ	10	2.0	120	6.0	60	1.0m	2.0	2.0	100	300 #	80M $\Delta$		300n		T059	C	
4	2N50851	200m	35	∅	SJ	10	2.0	150	6.0	80	1.0m	2.0	2.0	40	120 #	50M $\Delta$		300n		T059	C	
5	2N52021	200m	35	∅	SJ	4.0	2.0	100	6.0	75	1.0m	1.2	4.0	10	100	60M $\Delta$	300m	400n		T066	C	
6	2N53261	200m	20	∅	SJ	5.0	1.0	100	6.0	80	1.0	1.0	1.0	50	150 #	80M $\Delta$		150n		T059	A	
7	2N56601	200m	20	∅	SJ	1.0	200m	250	6.0	200	1.0u	5.0	500m	40	120 #	20M $\Delta$		250n		T066	C	
8	2N56611	200m	20	∅	SJ	1.0	200m	400	6.0	300	1.0u	5.0	500m	25	75 #	20M $\Delta$		250n		T066	C	
9	2N5700	200m	35	∅	SS	3.0		40	4.0	18	2.0m	1.0	50m	15						T0129	R	
10	2N5701	200m	35	∅	SS	3.0		40	4.0	18	2.5m	1.0	50m	15						T0129	R	
11	2N5919	200m	25	∅	SS	1.5		65	4.0	30	10m	1.0								T78	R	
12	2N5919A	200m	25	∅	SS	4.5		65	4.0	30	10m	1.0								T216a	R	
13	2N5938	200m	2.5	∅	SJ	3.0	1.0	60	4.0	50	100u	3.0	1.0	30	150 #	150M $\Delta$				T126	A	
14	2N61781	200m	10	∅	SJ	2.0	1.0	100	7.0	100 #	4.0	500m	30	130 #	50M $\Delta$	1.0	80n		B24	A		
15	2N61791	200m	10	∅	SJ	2.0	1.0	75	5.0	75 #	4.0	500m	40	250 #	50M $\Delta$	1.6	80n		B24	A		
16	2N65001	200m	20	∅	SJ	4.0	3.0	120	7.0	110 #	2.0	3.0	15	60 #	60M $\Delta$	500m	400n		T066	C		
17	2SC825	200m	30	∅	SJ	2.0		300	6.0	300	20u	10	500m	20	250	15M			T066	C		
18	2SC1031	200m	30	∅	SJ			300	6.0	300	5.0m	10	500m	30	300 #				T066	C		
19	2SC1034	200m	25	∅	SJ	1.0		1.1k	1.3		5.0m	3.0	750m	4.0	40	5.0M	6.7	500m	F22	C		
20	2SC1060	200m	25	∅	SJ	3.0		100u	4.0	50	100u	4.0	1.0	35	320	8.0M	500m		B17a	B		
21	2SC1061	200m	25	∅	SJ	3.0		50	4.0	50	100u	4.0	1.0	35	320	8.0M	500m		B17	B		
22	2SC1076	200m	30	∅	SJ	6.0	#	36	4.0	18	30u	13	600m	15	50	800M			T98	C		
23	2SC1190	200m	30	∅	SJ	5.0	#	36	4.0	18	100u	13	400m	10	50	600M			T98	C		
24	2SC1307	200m	25	∅	SJ	8.0	#	70	4.0	70	20u	10	2.0	20	150 #	180M	250m		Y220b	D		
25	2SC1307-1	20	25	∅	SJ	8.0	#	45	4.0	45	20u	10	2.0	20	150 #	140M			Y220a	X		
26	2SC1591	200m	25	∅	SJ	2.5		36	4.0	18	2.0m	1.0	1.0	15	200	200M			W64	Y		
27	2SC1689	200m	1.5	∅	SJ	1.5	1.5	150	5.0	150	20u	10	500m	40	240	6.0M	3.0		B26	D		
28	2SC1929	200m	25	∅	SJ	1.0	#	300	6.0	270	10u	5.0	100m	35	330	80M	4.0		B17	D		
29	2SC2094	200m	30	∅	SJ	3.5		40	4.5	17	2.0m	1.0	100m	10	180 #	500M			W96	V		
30	2SC2106	200m	30	∅	SJ	2.8		35	3.5	17	1.5m	5.0	1.5	10		900M			T90	R		
31	2SC2176	200m	30	∅	SJ	3.0		50	4	25	100u	5.0	1.0	10		200M			T90	R		
32	2SC2183	200m	30	∅	SJ	4.5		35	4.0	20	100u	5.0	1.5	20		400M			T90	R		
33	2SC2238	200m	25	∅	SJ	1.5		160	5.0	160	1.0u	5.0	100m	70 #	240 #	100M			Y220b	D		
34	2SC2242	200m	25	∅	SJ	150m	150m	300	5.0	300	1.0u	1.0	50m	40 #	170 #	40M			Y220b	D		
35	2SC2275	20	25	∅	SJ	1.5	30	120	5.0	120	1.0u	5.0	30	60 #	320 #	200M			B64	X		
36	2SC2275A	20	25	∅	SJ	1.5	30	150	5.0	150	1.0u	5.0	30	60 #	320 #	200M			B64	X		
37	2SC2336	20	25	∅	SJ	1.5		180	5.0	180	1.0u	5.0	150m	60 #	320 #	95M			B64	X		
38	2SC2336A	20	25	∅	SJ	1.5		200	5.0	200	1.0u	5.0	150m	60 #	320 #	95M			B64	X		
39	2SC2336B	20	25	∅	SJ	1.5		250	5.0	250	1.0u	5.0	150m	60 #	320 #	95M			B64	X		
40	2SC2528	200m	25	∅	SJ	2.0		120	7.0	120	50u	5.0	300m	60 #	350	120M			Y220b	D		
41	2SC2562	200m	25	∅	SJ	5.0		60	5.0	50	1.0u	1.0	1.0	70	240	120M			T163	C		
42	2SC2798	200m	30	∅	SJ	2.0		45	4.0	35	1.0m	2.5	1.0	10	180	1.5G			T163	C		
43	2SD102	200m	25	∅	SJ	3.0		100	10	80	100u	5.0	500m	30	300	1.5M			T066	C		
44	2SD129	200m	25	∅	SJ	3.0		90	10	80	1.0m	5.0	1.0	30	200	1.0M	500m		T066	C		
45	2SD130	200m	25	∅	SJ	3.0	3.0	60	10	50	1.0m	5.0	500m	30	200 #	1.0M			T066	C		
46	2SD158	200m	30	∅	SJ	1.0		200	3.0	200	20u	10	500m	20	250 #	15M	6.0		T066	A		
47	2SD159	200m	30	∅	SJ	1.0		300	3.0	300	20u	10	500m	20	250 #	15M	700m		T066	A		
48	2SD226	200m	25	∅	SJ	2.0	1.0	40	10	40	30u	3.0	1.0	20	90	25k	700m		T066	C		
49	2SD226A	200m	25	∅	SJ	2.0	1.0	60	10	60	30u	3.0	1.0	20	90	25k	700m		T066	C		
50	2SD226B	200m	25	∅	SJ	2.0	1.0	80	10	80	30u	3.0	1.0	20	90	25k	700m		T066	C		
51	2SD234	200m	1.5	∅	SJ	3.0	3.0	60	10	50	100u	5.0	500m	40	240	1.0M	400m		Y220b	C		
52	2SD234G	200m	25	∅	SJ	3.0	3.0	60	10	50	100u	5.0	500m	40	240	1.0M	400m		B26a	D		
53	2SD235	200m	1.5	∅	SJ	3.0	3.0	50	10	40	100u	5.0	500m	40	240	1.0M	1.0		Y220b	C		
54	2SD235G	200m	25	∅	SJ	3.0	3.0	80	10	40	100u	5.0	500m	40	240	1.0M	2.0	2.5u	DM	T066	C	
55	2SD2511	200m	30	∅	SJ	2.0		200	5.0	200	5.0u	1.0	500m	100	200 #	2.0	500m		ME	T066	C	
56	2SD297	200m	25	∅	SJ	3.0		150	7.0	80	500u	2.0	2.0	30				D	TO3	C		
57	2SD312	200m	25	∅	SJ	1.0	#	800	6.0	600	1.0m	1.0	600m	25				D	TO3	C		
58	2SD317	200m	25	∅	SJ	3.0	1.0	60	8.0	60	30u	3.0	1.0	30	160 #	25k	500m		ME	B17	B	
59	2SD317A	200m	25	∅	SJ	3.0	1.0	80	8.0	80	30u	3.0	1.0	30	180 #	25k	500m		ME	B17	B	
60	2SD318	200m	25	∅	SJ	3.0	1.0	60	8.0	60	30u	3.0	1.0	30	180 #	25k	500m		ME	B17a	B	
61	2SD318A	200m	25	∅	SJ	3.0	1.0	80	8.0	80	30u	3.0	1.0	30	180 #	25k	500m		ME	B17	D	
62	2SD365	200m	25	∅	SJ	3.0		60	5.0	60	30u	3.0	1.0	30	180	70k	600m		ME	B17	D	
63	2SD365A	200m	25	∅	SJ	3.0		80	5.0	80	30u	3.0	1.0	30	180	70k	600m		ME	B17	D	
64	2SD366	200m	25	∅	SJ	3.0		60	5.0	60	30u	3.0	1.0	30	180	70k	500m		ME	B17a	D	
65	2SD366A	200m	25	∅	SJ	3.0		80	5.0	80	30u	3.0	1.0	30	180	70k	500m		ME	B17a	D	
66	2SD389	200m	25	∅	SJ	3.0		60	8.0	60	30u	3.0	1.0	30	160	25k	500m		D	B17	D	
67	2SD389A	200m	25	∅	SJ	3.0		80	8.0	80	30u	3.0	1.0	30	160	25k	500m		D	B17a	D	
68	2SD390	200m	25	∅	SJ	3.0		60	8.0	60	30u	3.0	1.0	30	160	25k	500m		D	B17a	D	
69	2SD390A	200m	25	∅	SJ	3.0		80	8.0	80	30u	3.0	1.0	30	160	25k	500m		D	B17a	D	
70	2SD401A	200m	25	∅	SJ	2.0		200	5.0	150	50u	1.0	400m	40 #	200 #	5.0M	2.0		D	Y220b	X	
71	2SD402A	200m	30	∅	SJ	2.0		200	5.0	150	50u	1.0	400m	40 #	200 #	5.0M	2.0		D	Y220a	AJ	
72	2SD4221	200m	30	∅	SJ	4.0		250	6.0	200	100u	5.0	3.0	20		30M	400m	1.3u	ME	T066	C	
73	2SD4231	200m	30	∅	SJ	4.0		250	6.0	200	100u	5.0	3.0	20		30						