

# 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)	M T A X E M P	ABSOLUTE MAX. RATINGS @ 25°C					MAX. hFE			BIAS Vcb (V)	MIN	MAX	fae (Hz)	MAX. SAT. RES. (Ω)	tr (s)	STRUC-TURE	DWG #	L C O A D E
					Ic (A)	Ib (A)	VbVco (V)	VBeVco (V)	VbVceo (V)	lco @ 25°C (A)	Vcb (V)	Ic (A)									
1	DTS425#	1.3	100	J	3.5	2.0	6.0	5.0	500	250uΔ	5.0	1.0	30	90	2.5mΔ	800m					
2	DTS431M†	1.3	125	J	3.5	2.0	400	5.0	400	2.5mΔ	5.0	2.5	15	35	2.5mΔ	280m	800n	Δ	Y204a	CØ	
3	DTS3704	1.3		J	2.0	5.0	200	5.0	200		5.0	5.0	20	80	115k	1.6					
4	DTS3704A	1.3		J	2.0	5.0	300	5.0	300		5.0	5.0	20	80	115k	1.6					
5	DTS3704B	1.3		J	2.0	5.0	400	5.0	335		5.0	5.0	20	80	115k	1.6					
6	DTS3705	1.3		J	3.5	5.0	200	5.0	200		5.0	5.0	25	75	110k	80					
7	DTS3705A	1.3		J	3.5	5.0	300	5.0	300	50m	5.0	1.0	25	75	110k	80					
8	DTS3705B	1.3		J	3.5	5.0	400	5.0	400	50m	5.0	1.0	25	75	110k	80					
9	DTS4065	1.3	100	J	1.5	4.0	20	20	400	250uΔ	5.0	3.0	500		8.0mΔ				Δ	Y204a	CØ
10	HEPS7006-RT	1.3	125	J	5.0	2.0	1.5k	5.0	750	1.0mΔ		1.0	30	90	2.5mΔ	800m					
11	MJ410	1.3		J	5.0	2.0	200	5.0	200	250uΔ	5.0	1.0	30	90	2.5mΔ	800m					
12	MJ411	1.3		J	5.0	2.0	300	5.0	300	250uΔ	5.0	1.0	30	90	2.5mΔ	800m					
13	MJ424	1.3		J	5.0	2.0	700	6.0	350	250uΔ	5.0	1.0	30	90	2.5mΔ	800m					
14	MJ425	1.3		J	5.0	2.0	700	6.0	400	250uΔ	5.0	1.0	30	90	2.5mΔ	800m					
15	SD1078	1.3	220	J	1.5		65	4.0	36	2.0mΔ	5.0	5.0	10	10					EPL	W52w	CØ
16	SDT402	1.3	100	J	3.5	2.0	5.0	5.0	400	0.5mΔ		1.0	30	90	2.0mΔ	250m	2.5u	PL			
17	SDT401	1.3	125	J	3.5	2.0	5.0	5.0	200	500u#	5.0	1.0	30	90	4.0mΔ	250m	2.5u	ME			
18	SDT411	1.3	100	J	3.5	2.0	300	5.0	300	0.5mΔ	5.0	1.0	30	90	2.0mΔ	250m	2.5u	PL			
19	SDT423†	1.3	100	J	3.5	2.0	400	5.0	400	0.5	5.0	1.0	30	90	2.5mΔ	3.8u	PL				
20	SDT424†	1.3	100	J	3.5	2.0	700	6.0	500	0.5	5.0	1.0	30	90	2.5mΔ	3.8u	PL				
21	SDT425†	1.3	100	J	3.5	2.0	700	6.0	500	0.5	5.0	1.0	30	90	2.5mΔ	3.8u	PL				
22	SDT430†	1.3	125	J	3.0	2.0	400	5.0	400	2.5mΔ	5.0	2.5	15	45	2.5mΔ	800n		PL			
23	SDT431†	1.3	125	J	3.0	2.0	400	5.0	400	2.5mΔ	5.0	2.5	15	45	2.5mΔ	800n		PL			
24	SDT431†	1.3	250	J	3.0	1.5	180	7.0		2.0mΔ	4.0	8.0	15	45	2.5mΔ	100m	1.5u	PL			
25	SPC153.04	1.3	200	J	7.5	3.0	65	25	40	10m#	4.0	1.5	15		866m			D			
26	SPC153.06	1.3	200	J	7.5	3.0	85	25	60	10m#	4.0	1.5	15		866m			D			
27	SPC153.08	1.3	200	J	7.5	3.0	105	25	80	10m#	4.0	1.5	15		866m			D			
28	SPC153.10	1.3	200	J	7.5	3.0	125	25	100	10m#	4.0	1.5	15		866m			D			
29	SPC153.12	1.3	200	J	7.5	3.0	145	25	120	10m#	4.0	1.5	15		866m			D			
30	SPC153.14	1.3	200	J	7.5	3.0	165	25	140	10m#	4.0	1.5	15		866m			D			
31	SPC153.16	1.3	200	J	7.5	3.0	185	25	160	10m#	4.0	1.5	15		866m			D			
32	SPC153.18	1.3	200	J	7.5	3.0	205	25	180	10m#	4.0	1.5	15		866m			D			
33	SPC153.20	1.3	200	J	7.5	3.0	225	25	200	10m#	4.0	1.5	15		866m			D			
34	SPC153.22	1.3	200	J	7.5	3.0	245	25	220	10m#	4.0	1.5	15		866m			D			
35	SPC153.24	1.3	200	J	7.5	3.0	265	25	240	10m#	4.0	1.5	15		866m			D			
36	SPC153.26	1.3	200	J	7.5	3.0	285	25	260	10m#	4.0	1.5	15		866m			D			
37	SPC153.28	1.3	200	J	7.5	3.0	305	25	280	10m#	4.0	1.5	15		866m			D			
38	SPC153.30	1.3	200	J	7.5	3.0	325	25	300	10m#	4.0	1.5	15		866m			D			
39	SPC154.04	1.3	200	J	7.5	3.0	65	25	40	10m#	4.0	1.5	25		833m			D			
40	SPC154.06	1.3	200	J	7.5	3.0	85	25	60	10m#	4.0	1.5	25		833m			D			
41	SPC154.08	1.3	200	J	7.5	3.0	105	25	80	10m#	4.0	1.5	25		833m			D			
42	SPC154.10	1.3	200	J	7.5	3.0	125	25	100	10m#	4.0	1.5	25		833m			D			
43	SPC154.12	1.3	200	J	7.5	3.0	145	25	120	10m#	4.0	1.5	25		833m			D			
44	SPC154.14	1.3	200	J	7.5	3.0	165	25	140	10m#	4.0	1.5	25		833m			D			
45	SPC154.16	1.3	200	J	7.5	3.0	185	25	160	10m#	4.0	1.5	25		833m			D			
46	SPC154.18	1.3	200	J	7.5	3.0	205	25	180	10m#	4.0	1.5	25		833m			D			
47	SPC154.20	1.3	200	J	7.5	3.0	225	25	200	10m#	4.0	1.5	25		833m			D			
48	SPC154.22	1.3	200	J	7.5	3.0	245	25	220	10m#	4.0	1.5	25		833m			D			
49	SPC154.24	1.3	200	J	7.5	3.0	265	25	240	10m#	4.0	1.5	25		833m			D			
50	SPC154.26	1.3	200	J	7.5	3.0	285	25	260	10m#	4.0	1.5	25		833m			D			
51	SPC154.28	1.3	200	J	7.5	3.0	305	25	280	10m#	4.0	1.5	25		833m			D			
52	SPC154.30	1.3	200	J	7.5	3.0	325	25	300	10m#	4.0	1.5	25		833m			D			
53	SPC402	1.3	100	J	3.5	2.0	400	5.0	325	500uΔ	5.0	500m	20	100	4.0M	666m		D			
54	SPC410	1.3	80	J	3.5	2.0	200	5.0	200	500u#†	5.0	1.0	30	90	4.0M	160m		D			
55	SPC411	1.3	100	J	3.5	2.0	300	5.0	300	500u#†	5.0	1.0	30	90	5.0M	800m		D			
56	SPC423	1.3	100	J	3.5	2.0	400	5.0	325	500 #†	500	1.0	30	90	5.0M	800m		D			
57	SPC424	1.3	100	J	3.5	2.0	500	6.0	350	250uΔ	5.0	1.0	30	90	4.0M	800m		D			
58	SPC425	1.3	100	J	3.5	2.0	500	6.0	400	250uΔ	5.0	1.0	30	90	4.0M	800m		D			
59	STS103	1.3	125	J	15	5.0	80	5.0	60	250uΔ	1.5	5.0	20	55	4.0MΔ	180m	550n	EMΔ			
60	STS104	1.3	125	J	15	5.0	80	5.0	60	250uΔ	1.5	5.0	20	55	4.0MΔ	150m	550n	EMΔ			
61	STS105	1.3	125	J	15	5.0	100	5.0	80	250uΔ	1.5	5.0	20	55	4.0MΔ	180m	550n	EMΔ			
62	STS106	1.3	125	J	15	5.0	110	5.0	90	250uΔ	1.5	5.0	20	55	4.0MΔ	180m	550n	EMΔ			
63	STS107	1.3	125	J	15	5.0	120	5.0	100	250uΔ	1.5	5.0	20	55	4.0MΔ	180m	550n	EMΔ			
64	STS402	1.3	100	J	3.5	2.0	400	5.0	400	500nΔ	4.0	1.0	15		667m	1.9u#	EMΔ				
65	STS403	1.3	100	J	3.5	2.0	400	5.0	400	250uΔ	5.0	1.0	15		571m	700n#	EMΔ				
66	STS409	1.3	100	J	3.5	2.0	400	5.0	400	350uΔ	5.0	1.0	15		2.5m	1.2	EM				
67	STS410	1.3	80	J	3.5	2.0	200	5.0	200	500u#†	5.0	1.0	30	90	4.0M	800m	300n	EMΔ			
68	STS411	1.3	100	J	3.5	2.0	300	5.0	300	500u#†	5.0	1.0	30	90	5.0M	800m	300n	EMΔ			
69	STS423	1.3	100	J	3.5	2.0	400	5.0	400	500u#†	5.0	1.0	30	90	5.0M	800m	300n	EMΔ			
70	STS424	1.3	100	J	3.5	2.0	5.0	5.0	500	250uΔ	5.0	1.0	30	90	4.0M	300m	300n	EMΔ			
71	STS425	1.3	100	J	3.5	2.0	5.0	5.0	500	250uΔ	5.0	1.0	30	90	4.0M	300m	300n	EMΔ			
72	XGSR50020†	1.3	100	J	5.0	10	250	8.0	200	500u#	2.0	20	15	50	30MΔ	50m#	100n	Δ			
73	2N1015†	1.4	150	J	7.5	5.0	25	30		20m#†	4.0	2.0	10		20k	6.0u		T1			
74	2N1015A†	1.4	150	J	7.5	5.0	25	60		20m#†	4.0	2.0	10		20k	6.0u		T1			
75	2N1015B†	1.4	150	J	7.5	5.0	25	100		20m#†	4.0	2.0	10		20						