

# 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 D E
					Ic (A)	Ib (A)	VbVco (V)	VBeVce (V)	VbVceo (V)	lco @ 25°C (A)	Vcb (V)	lc (A)									
1	DTS425#	1.3	100	J	3.5	2.0	6.0	5.0	5.0	250uΔ	5.0	1.0	30	90	2.5mΔ	800m			T03	CØ	
2	DTS431M†	1.3	125	J	3.5	2.0	4.00	5.0	4.00	2.5mΔ	5.0	2.5	15	35	2.5mΔ	280m	800nØ	Δ	Y204a	CØ	
3	DTS3704	1.3		J	2.0	5.0	200	5.0	200	5.0	5.0	5.0	20	80	115k	1.6			T04	CØ	
4	DTS3704A	1.3		J	2.0	5.0	300	5.0	300	5.0	5.0	5.0	20	80	115k	1.6			T04	CØ	
5	DTS3704B	1.3		J	2.0	5.0	400	5.0	335	5.0	5.0	5.0	20	80	115k	1.6			T04	CØ	
6	DTS3705	1.3		J	3.5	5.0	200	5.0	200	5.0	5.0	5.0	25	75	110k	80			T03	CØ	
7	DTS3705A	1.3		J	3.5	5.0	300	5.0	300	5.0	5.0	5.0	25	75	110k	80			T03	CØ	
8	DTS3705B	1.3		J	3.5	5.0	400	5.0	400	5.0	5.0	5.0	25	75	110k	80			T03	CØ	
9	DTS4065	1.3	100	J	1.5	4.0	20	20	600	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	200	1.0mΔ		1.0	30	90	7.5mΔ	800m			T03	CØ	
11	MJ410	1.3		J	5.0	2.0	200	5.0	200	250uΔ	5.0	1.0	30	90	2.5mΔ	800m			T03	CØ	
12	MJ411	1.3		J	5.0	2.0	300	5.0	300	250uΔ	5.0	1.0	30	90	2.5mΔ	800m			T03	CØ	
13	MJ424	1.3		J	5.0	2.0	700	6.0	350	250uΔ	5.0	1.0	30	90	2.5mΔ	800m			T03	CØ	
14	MJ425	1.3		J	5.0	2.0	700	6.0	400	250uΔ	5.0	1.0	30	90	2.5mΔ	800m			T03	CØ	
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	200	5.0	400	0.5mΔ		1.0	30	90	2.0mΔ	250m	2.5uØ	PL	T03	A	
17	SDT401	1.3	125	J	3.5	2.0	200	5.0	200	500u#	5.0	1.0	30	90	4.0mΔ	250m	2.5uØ	ME	T03	CØ	
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	2.5uØ	PL	T03	A	
19	SDT423†	1.3	100	J	3.5	2.0	400	5.0	400	0.5	5.0	1.0	30	90	2.5mΔ	380uØ	3.8uØ	PL	T03	A	
20	SDT424†	1.3	100	J	3.5	2.0	700	6.0	500	0.5	5.0	1.0	30	90	2.5mΔ	3.8uØ	3.8uØ	PL	T03	A	
21	SDT425†	1.3	100	J	3.5	2.0	700	6.0	500	0.5	5.0	1.0	30	90	2.5mΔ	3.8uØ	3.8uØ	PL	T03	A	
22	SDT430†	1.3	125	J	3.0	2.0	400	5.0	400	2.5mΔ	5.0	2.5	15	45	2.5mΔ	800nØ		PL	T03	CØ	
23	SDT431†	1.3	125	J	3.0	2.0	400	5.0	400	2.5mΔ	5.0	2.5	15	45	2.5mΔ	800nØ		PL	T03	CØ	
24	SDT431†	1.3	250	J	3.0	1.5	180	7.0		2.0mØ	4.0	8.0	15	45	2.5mΔ	100m#	1.5u		T03	CØ	
25	SPC153.04	1.3	200	J	7.5	3.0	65	25	40	10m#	4.0	1.5	15		866m			D	T061	A	
26	SPC153.08	1.3	200	J	7.5	3.0	85	25	60	10m#	4.0	1.5	15		866m			D	T061	A	
27	SPC153.08	1.3	200	J	7.5	3.0	105	25	80	10m#	4.0	1.5	15		866m			D	T061	A	
28	SPC153.10	1.3	200	J	7.5	3.0	125	25	100	10m#	4.0	1.5	15		866m			D	T061	A	
29	SPC153.12	1.3	200	J	7.5	3.0	145	25	120	10m#	4.0	1.5	15		866m			D	T061	A	
30	SPC153.14	1.3	200	J	7.5	3.0	165	25	140	10m#	4.0	1.5	15		866m			D	T061	A	
31	SPC153.16	1.3	200	J	7.5	3.0	185	25	160	10m#	4.0	1.5	15		866m			D	T061	A	
32	SPC153.18	1.3	200	J	7.5	3.0	205	25	180	10m#	4.0	1.5	15		866m			D	T061	A	
33	SPC153.20	1.3	200	J	7.5	3.0	225	25	200	10m#	4.0	1.5	15		866m			D	T061	A	
34	SPC153.22	1.3	200	J	7.5	3.0	245	25	220	10m#	4.0	1.5	15		866m			D	T061	A	
35	SPC153.24	1.3	200	J	7.5	3.0	265	25	240	10m#	4.0	1.5	15		866m			D	T061	A	
36	SPC153.26	1.3	200	J	7.5	3.0	285	25	260	10m#	4.0	1.5	15		866m			D	T061	A	
37	SPC153.28	1.3	200	J	7.5	3.0	305	25	280	10m#	4.0	1.5	15		866m			D	T061	A	
38	SPC153.30	1.3	200	J	7.5	3.0	325	25	300	10m#	4.0	1.5	15		866m			D	T061	A	
39	SPC154.04	1.3	200	J	7.5	3.0	65	25	40	10m#	4.0	1.5	25		833m			D	T061	A	
40	SPC154.06	1.3	200	J	7.5	3.0	85	25	60	10m#	4.0	1.5	25		833m			D	T061	A	
41	SPC154.08	1.3	200	J	7.5	3.0	105	25	80	10m#	4.0	1.5	25		833m			D	T061	A	
42	SPC154.10	1.3	200	J	7.5	3.0	125	25	100	10m#	4.0	1.5	25		833m			D	T061	A	
43	SPC154.12	1.3	200	J	7.5	3.0	145	25	120	10m#	4.0	1.5	25		833m			D	T061	A	
44	SPC154.14	1.3	200	J	7.5	3.0	165	25	140	10m#	4.0	1.5	25		833m			D	T061	A	
45	SPC154.16	1.3	200	J	7.5	3.0	185	25	160	10m#	4.0	1.5	25		833m			D	T061	A	
46	SPC154.18	1.3	200	J	7.5	3.0	205	25	180	10m#	4.0	1.5	25		833m			D	T061	A	
47	SPC154.20	1.3	200	J	7.5	3.0	225	25	200	10m#	4.0	1.5	25		833m			D	T061	A	
48	SPC154.22	1.3	200	J	7.5	3.0	245	25	220	10m#	4.0	1.5	25		833m			D	T061	A	
49	SPC154.24	1.3	200	J	7.5	3.0	265	25	240	10m#	4.0	1.5	25		833m			D	T061	A	
50	SPC154.26	1.3	200	J	7.5	3.0	285	25	260	10m#	4.0	1.5	25		833m			D	T061	A	
51	SPC154.28	1.3	200	J	7.5	3.0	305	25	280	10m#	4.0	1.5	25		833m			D	T061	A	
52	SPC154.30	1.3	200	J	7.5	3.0	325	25	300	10m#	4.0	1.5	25		833m			D	T061	A	
53	SPC402	1.3	100	J	3.5	2.0	400	5.0	325	500uΔ	5.0	500m	20	100	4.0M	666m		D	T03	CØ	
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	T03	CØ	
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	T03	CØ	
56	SPC423	1.3	100	J	3.5	2.0	400	5.0	325	500 #†	500	1.0	30	90	5.0M	800m		D	T03	CØ	
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	T03	CØ	
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	T03	CØ	
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	T03	CØ	
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	T03	CØ	
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	T03	CØ	
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	T03	CØ	
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	T03	CØ	
64	STS402	1.3	100	J	3.5	2.0	400	5.0	400	500nΔ	4.0	1.5	15		667m	1.9u#	EMΔ	T03	CØ		
65	STS403	1.3	100	J	3.5	2.0	400	5.0	400	250uΔ	5.0	1.0	15		571m	700n#	EMΔ	T03	CØ		
66	STS409	1.3	100	J	3.5	2.0	400	5.0	400	350uΔ	5.0	1.0	15		2.5mΔ	1.2	EM	T03	CØ		
67	STS410	1.3	80	J	3.5	2.0	200	5.0	200	500u#†	5.0	1.0	30	90	4.0M	800m	300nØ	EMΔ	T03	CØ	
68	STS411	1.3	100	J	3.5	2.0	300	5.0	300	500u#†	5.0	1.0	30	90	5.0M	800m	300nØ	EMΔ	T03	CØ	
69	STS423	1.3	100	J	3.5	2.0	400	5.0	400	500u#†	5.0	1.0	30	90	5.0M	800m	300nØ	EMΔ	T03	CØ	
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	T03	CØ	
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	T03	CØ	
72	XGSR50020†	1.3	100	J	5.0	10	250	8.0	200	500uØ	2.0	20	15	50	30MΔ	50m#	100nØ	DPL	T03	CØ	
73	2N1015†	1.4	150	J	7.5	5.0	25	30	20	20m#†	4.0	2.0	10		20k	6.0uØ		T1		B	
74	2N1015A†	1.4	150	J	7.5	5.0	25	60	20	20m#†	4.0	2.0	10		20k	6.0uØ		T1		B	
75																					