

# 5. SILICON NPN - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION  
(2) fab & (3) TYPE No.

LINE No.	TYPE No.	ABS MAX RATINGS @25°C										TYPICAL h' PARAMETERS							Cob (F)	STRUC-TURE	DWG # s/a TO200 Ser.	L E O D E
		1 [MAX. COLL. DISS. @25°C (W)	2 [fab IN FREE AIR W/°C	M E M P	T BVcbo (V)	BVceo (V)	VBebo (V)	Ic (A)	MAX. Icb0 @MAX Vcb (A)	BIAS			COMMON EMITTER									
										Vcb (V)	Ie (A)	hfe	hoe (mhos)	hie (Ω)	hre (X.0001)							
1	2N1410A†	800m	230M	4.0m	45	30	4.0	500m	100	100	150m	60	100	100	80u	750	5.0u	12p	ME PE DPL	T05	A	
2#	BFY510†	800m	230M	4.0m	60	30	6.0	1.0	50n	5.0	100	45	100	100	80u	750	5.0u	12p	PE	T039	A	
3	SE8041	800m	230M	4.5m	60	30	6.0	1.0	50n	100	150m	70	100	100	80u	750	5.0u	9.0p	PE	T039	A	
4	BFY16S†	800m	240M	4.5m	55	30	6.0	1.0	1.0u	100	100M	100	100	20p	150	5.0u	20p	PE	T039	A		
5	BSY24S†	800m	240M	4.5m	55	30	6.0	1.0	1.0u	100	100M	100	100	20p	150	5.0u	20p	PE	T039	A		
6	2N2217	800m	250M	4.5m	60	30	5.0	800m	0.1u	100	1.0m	12	100	8p	150	5.0u	8p	PE	T05	A		
7	2N2218	800m	250M	4.5m	60	30	5.0	800m	0.1u	100	1.0m	25	100	8p	150	5.0u	8p	PE	T05	A		
8	JAN2N2218A†	800m	250M	4.5m	60	30	5.0	800m	10n	100	1.0m	25	100	8.0p	150	5.0u	8.0p	PE	T039	A		
9	2N2218A†	800m	250M	4.5m	75	40	6.0	800m	10n	100	1.0m	30	100	8.0p	150	5.0u	8.0p	PE	T05	A		
10	JAN2N2218A†	800m	250M	4.5m	75	50	6.0	800m	10n	100	1.0m	30	100	8.0p	150	5.0u	8.0p	PE	T039	A		
11	2N2219	800m	250M	4.5m	60	30	5.0	800m	0.1u	100	1.0m	50	100	8.0p	150	5.0u	8.0p	PE	T05	A		
12	JAN2N2219†	800m	250M	4.5m	60	30	5.0	800m	10n	100	1.0m	50	100	8.0p	150	5.0u	8.0p	PE	T039	A		
13	JAN2N2219A†	800m	250M	4.5m	75	50	6.0	800m	10n	100	1.0m	50	100	8.0p	150	5.0u	8.0p	PE	T039	A		
14	2N2224	800m	250M	5.3m	65	40	5.0	500m	10n	100	100u	35	100	8.0p	150	5.0u	8.0p	PE	T05	A		
15	2N2537†	800m	250M	4.5m	60	30	5.0	800m	25u	100	1.0m	20	100	8.0p	150	5.0u	8.0p	PE	T05	A		
16	2N2538†	800m	250M	4.5m	60	30	5.0	800m	25u	100	1.0m	30	100	8.0p	150	5.0u	8.0p	PE	T05	A		
17	2N2787†	800m	250M	4.6m	75	35	5.0	800m	10n	200	20m	30	100	8.0p	150	5.0u	8.0p	PE	T05	A		
18	2N2788†	800m	250M	4.6m	75	35	5.0	800m	10n	200	20m	75	100	8.0p	150	5.0u	8.0p	PE	T05	A		
19	2N2789†	800m	250M	4.6m	75	35	5.0	800m	10n	200	20m	150	100	8.0p	150	5.0u	8.0p	PE	T05	A		
20	2N2789S†	800m	250M	4.6m	75	35	5.0	800m	10n	200	20m	150	100	8.0p	150	5.0u	8.0p	PE	T039	A		
21	2N2846†	800m	250M	4.6m	60	30	5.0	800m	20u	100	150m	30	100	8.0p	150	5.0u	8.0p	PE	T05	A		
22	2N2848†	800m	250M	4.5m	60	20	5.0	800m	20u	100	150m	40	100	8.0p	150	5.0u	8.0p	PE	T05	A		
23	2N3015†	800m	250M	4.5m	60	30	5.0	800m	20u	100	150m	30	100	8.0p	150	5.0u	8.0p	PE	T05	A		
24	2N3299†	800m	250M	4.5m	60	30	5.0	500m	0.1u	100	10m	20	100	8.0p	150	5.0u	8.0p	PE	T05	A		
25	2N3300†	800m	250M	4.5m	60	30	5.0	500m	0.1u	100	10m	35	100	8.0p	150	5.0u	8.0p	PE	T05	A		
26	2N3326†	800m	250M	5.3m	60	45	5.0	800m	0.1u	100	10m	35	100	8.0p	150	5.0u	8.0p	PE	T05	A		
27	2N3512†	800m	250M	4.5m	60	35	5.0	800m	1.0	100	500m	10	100	10p	150	5.0u	10p	PE	T05	A		
28	2N3678†	800m	250M	4.5m	75	55	6.0	800m	0.1u	100	150m	40	100	8.0p	150	5.0u	8.0p	PE	T05	A		
29	2N3981†	800m	250M	4.5m	60	30	5.0	800m	1.0	100	150m	30	100	8.0p	150	5.0u	8.0p	PE	T05	A		
30	2N3982†	800m	250M	4.5m	50	20	5.0	800m	1.0	100	150m	40	100	8.0p	150	5.0u	8.0p	PE	T05	A		
31	2N4046†	800m	250M	4.5m	50	30	6.0	500m	1.7u	100	100m	150	100	12p	150	5.0u	12p	PE	T05	A		
32	2N4047†	800m	250M	4.5m	80	50	6.0	500m	1.7u	100	100m	150	100	10p	150	5.0u	10p	PE	T05	A		
33	2N4960†	800m	250M	4.5m	60	60	6.5	500m	1.0	100	10m	60	100	15p	150	5.0u	15p	PE	T039	A		
34	2N4962†	800m	250M	2.9m	60	60	6.5	500m	1.0	100	10m	60	100	15p	150	5.0u	15p	PE	T018	A		
35#	2SC971	800m	250M	5.3m	60	30	5.0	500m	1.0	100	150m	60	100	20p	150	5.0u	20p	PE	T05	A		
36#	2SC502	800m	250M	6.7m	60	60	5.0	500m	1.0	100	200m	30	100	13p	150	5.0u	13p	PE	T039	A		
37#	2SC580	800m	250M	6.25u	60	30	5.0	500m	1.0	100	50m	80	100	10p	150	5.0u	10p	PE	T05	A		
38#	BF322	800m	250M	5.3m	30	25	3.0	600m	1.0	100	10m	300	100	6.0p	150	5.0u	6.0p	PE	T039	A		
39#	BFR10†	800m	250M	4.5m	40	40	4.0	600m	1.0	100	150m	60	100	8.0p	150	5.0u	8.0p	PE	T039	A		
40#	BFX17	800m	250M	4.5m	60	40	6.0	800m	2.0u	100	100m	35	100	12p	150	5.0u	12p	PE	T05	A		
41#	BFX96	800m	250M	4.5m	60	30	5.0	800m	0.1u	100	150m	40	100	8.0p	150	5.0u	8.0p	PE	T05	A		
42#	BFX96A	800m	250M	4.5m	60	30	5.0	800m	10n	100	150m	40	100	8.0p	150	5.0u	8.0p	PE	T039	A		
43#	BFX96A†	800m	250M	4.5m	60	30	5.0	800m	10n	100	150m	40	100	8.0p	150	5.0u	8.0p	PE	T039	A		
44#	BFX97	800m	250M	4.5m	60	30	5.0	800m	0.1u	100	150m	100	100	8.0p	150	5.0u	8.0p	PE	T05	A		
45#	BFX97A	800m	250M	4.5m	60	30	5.0	800m	10n	100	150m	100	100	8.0p	150	5.0u	8.0p	PE	T039	A		
46#	BFX97A†	800m	250M	4.5m	60	30	5.0	800m	10n	100	150m	100	100	8.0p	150	5.0u	8.0p	PE	T039	A		
47#	BFY52†	800m	250M	4.0m	40	20	6.0	1.0	50n	5.0	10m	45	100	80u	750	5.0u	12p	PE	T039	A		
48	HSE163-RT	800m	250M	6.4m	50	30	5.0	500m	50n	100	300m	50	100	12p	150	5.0u	12p	PE	T05	A		
49	HSE164-RT	800m	250M	6.4m	50	30	4.0	500m	5.0u	100	300m	30	100	12p	150	5.0u	12p	PE	T05	A		
50	MM1613†	800m	250M	4.5m	60	40	5.0	500m	50n	100	150m	40	100	6.0p	150	5.0u	6.0p	PE	T05	A		
51	MM1711†	800m	250M	4.5m	60	30	5.0	500m	50n	100	150m	100	100	6.0p	150	5.0u	6.0p	PE	T05	A		
52	UPI2217	800m	250M	5.3m	65	30	5.0	800m	14m	100	10m	18	100	8.0p	150	5.0u	8.0p	PE	T05	A		
53	UPI2218	800m	250M	5.3m	65	30	5.0	800m	14m	100	10m	30	100	8.0p	150	5.0u	8.0p	PE	T05	A		
54	UPI4046	800m	250M	4.5m	60	35	6.0	500m	1.7u	100	100m	150	100	2.0p	150	5.0u	2.0p	PE	T05	A		
55	UPI4047	800m	250M	4.5m	70	40	6.0	500m	1.7u	100	100m	150	100	10p	150	5.0u	10p	PE	T05	A		
56	2N2219A†	800m	300M	5.3m	75	40	6.0	800m	0.1u	100	10m	50	100	35u	8.0k	8	8p	PE	T05	A		
57	2N3722†	800m	300M	4.5m	80	60	6.0	500m	50u	100	10m	25	100	10p	150	5.0u	10p	PE	T05	A		
58	2N3723†	800m	300M	4.5m	100	80	6.0	500m	50u	100	10m	25	100	9p	150	5.0u	9p	PE	T05	A		
59	2N3724†	800m	300M	4.6m	50	30	6.0	500m	1.7u	100	100m	60	100	12p	150	5.0u	12p	PE	T039	A		
60	2N3725†	800m	300M	4.6m	80	50	6.0	500m	1.7u	100	100m	60	100	10p	150	5.0u	10p	PE	T039	A		
61	2N5145	80																				