

BI-POLAR TRANSISTORS

NTE Type Number	Polarity and Material	Description and Application	Case Style	Diag. No.	Maximum Collector Current (Amps)	Maximum Breakdown Voltage			Typical Forward Current Gain	Maximum Collector Power Dissipation (Watts)	Typical Freq. (MHz)
						Collector to Base (Volts)	Collector to Emitter (Volts)	Emitter to Base (Volts)			
					I_c	BV_{CBO}	BV_{CEO}	BV_{EBO}	h_{FE}	P_D	f_T
10	NPN-Si	UHF Low Noise Amp	TO92	9b	0.07	25	12	2.5	40 Min	0.4	4.5GHz
11	NPN-Si	High Current Amp (Compl to NTE12)	TO92	9c	5	40	20	7	230 Min	0.75	150
12	PNP-Si	High Current Amp (Compl to NTE11)	TO92	9c	5	27	18	7	180 Min	0.75	120
13	NPN-Si	Low Voltage Output Amp	-	516a	0.5	25	20	12	400 Min	0.6	200
14	PNP-Si	Low Freq Driver	FTR	411	0.7	80	80	5	120 Min	0.75	100
15	NPN-Si	High Transition-Freq Low Base Resistance High Gain VHF Mixer and OSC, UHF OSC	FTR	411	50	30	19	4	39 Min	0.3	1100
16	NPN-Si	Low Saturation Voltage, Low Output Capacitance $C_{ob} = 2.0pF$ Low Noise, Preamp, Equalizer Amps RF Amps and OSC (Compl to NTE17)	ATR	412	0.1	50	40	5	270 Min	0.3	180
17	PNP-Si	Low Noise, Low Output Capacitance, Sm-Sig Amps, Preamps, Equalizer Amps RF Amps and OSC (Compl to NTE16)	ATR	412	0.1	50	40	50	270 Min	0.3	140
18	NPN-Si	High Breakdown Voltage, Large Current Capacity Driver (Compl to NTE19)	ATR	412	0.7	80	80	5	120 Min	1	120
19	PNP-Si	High Breakdown Voltage, Large Current Capacity Driver (Compl to NTE18)	ATR	412	0.7	80	80	5	120 Min	1	100
20	NPN-Si	High Power, Low Collector Saturation Vltg, Power Output (Compl to NTE21)	ATR	412	2	40	32	5	120 Min	1	100
21	PNP-Si	High Power, Low Collector Saturation Vltg, Power Output (Compl to NTE20)	ATR	412	2	40	32	5	120 Min	1	100
22	NPN-Si	High Breakdown Voltage, Low Collector Saturation, Med Power Amp	ATR	412	1	100	80	5	120 Min	0.9	100
23	NPN-Si	Ultra High Freq Amp	TO92	9b	0.05	30	14	3	80	0.25	2GHz
24	NPN-Si	General Purpose Amp, Switch (Compl to NTE25)	TO237	413b	1	100	80	5	50 Min	2*	150
25	PNP-Si	General Purpose Amp, Switch (Compl to NTE24)	TO237	413b	1	100	80	5	40 Min	2*	125
26	NPN-Si	Low Noise Audio Amp	-	508	0.1	120	120	5	350 Min	0.2	100
27	PNP-Ge	High Current, High Gain Low Saturation Vltg Applications	TO3	1a	60	60	45	30	130	170	2kHz
28	PNP-Ge	High Current, High Gain, Low Saturation Vltg Applications	TO68	2	60	60	45	30	130	170	2kHz
29	NPN-Si	High Current, High Power Switching $t_r = 0.3\mu s$ Typ (Compl to NTE30)	TO3	1a	50	80	80	5	17	300	2
30	PNP-Si	High Current, High Power Switching $t_r = 0.3\mu s$ Typ (Compl to NTE29)	TO3	1a	50	80	80	5	25	300	2
31	NPN-Si	TV Sound Output, TV Vertical Output, AF Driver Output (Compl to NTE32)	Giant TO92	3b	1	160	160	6	100 Min	0.9	20 Min
32	PNP-Si	TV Sound & Vertical Output (Compl to NTE31)	Giant TO92	3b	1	160	160	6	100 Min	0.9	15 Min
36	NPN-Si	AF Pwr Amp, High Current Switching (Compl to NTE37)	TO3P	59a/59alt	12	160	140	6	100	100	15

MP = Matched Pairs; **Denotes Surface Mount Types; * $T_C = 25^\circ C$

See Diagrams, beginning on Page 1-42

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1-7