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NTE104
Germanium PNP Transistor
Audio Frequency Power Amplifier

Description:

The NTE104 is a Germanium PNP Alloy Junction transistor in a TO3 type package designed as an audio frequency power output amplifier.

Absolute Maximum Ratings: (T_A = +25°C unless otherwise specified)

Collector–Base Voltage, V_{CBO} 50V
Collector–Emitter Voltage (R_{BE} = 68Ω), V_{CER} 35V
Emitter–Base Voltage, V_{EBO} 10V
Collector Current, I_C 10A
Emitter Current, I_E 10A
Base Current, I_B 3A
Power Dissipation ($T_C \le$ +55°C), P_D 90W
Operating Junction Temperature, T_J . . . . . +100°C
Storage Temperature Range, T_{stg} . . . . . –55° to +100°C

Note 1. Matched pairs are available upon request (NTE104MP). Matched pairs have their gain specification (h_{FE}) matched to within 10% of each other.

Electrical Characteristics: (T_A = +25°C unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector–Emitter Breakdown Voltage	$V_{(BR)CER}$	$I_{C(peak)}$ = –0.6A, R_{BE} = 68Ω	35	–	–	V
Collector Cutoff Current	I_{CBO}	V_{CB} = 30V, I_E = 0	–	–	1.0	mA
DC Current Gain	h_{FE}	V_{CE} = 2V, I_C = 20mA	50	90	165	
Base–Emitter Input Voltage	V_{BE}	V_{CE} = 2V, I_C = 1A	–	0.38	–	V
Collector–Emitter Saturation Voltage	$V_{CE(sat)}$	I_C = 4A, I_B = 0.4A	–	0.29	–	V
Transition Frequency	f_T	V_{CB} = 2V, I_E = 1A	–	300	–	kHz