

NTE121 Germanium PNP Transistor Audio Frequency Power Amplifier

Description:

The NTE121 is a Germanium PNP Alloy Junction transistor in a TO3 type package designed as an audio frequency power output amplifier.

Absolute Maximum Ratings: ($T_A = +25^\circ\text{C}$ unless otherwise specified)

Collector–Base Voltage, V_{CBO}	60V
Collector–Emitter Voltage ($R_{BE} = 68\Omega$), V_{CER}	45V
Emitter–Base Voltage, V_{EBO}	10V
Collector Current, I_C	10A
Emitter Current, I_E	10A
Base Current, I_B	3A
Power Dissipation ($T_C \leq +55^\circ\text{C}$), 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 (NTE121MP). Matched pairs have their gain specification (h_{FE}) matched to within 10% of each other.

Electrical Characteristics: ($T_A = +25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector–Emitter Breakdown Voltage	$V_{(BR)CER}$	$I_{C(\text{peak})} = -0.6\text{A}$, $R_{BE} = 68\Omega$	45	–	–	V
Collector Cutoff Current	I_{CBO}	$V_{CB} = 30\text{V}$, $I_E = 0$	–	–	0.5	mA
DC Current Gain	h_{FE}	$V_{CE} = 2\text{V}$, $I_C = 20\text{mA}$	50	90	165	
Base–Emitter Input Voltage	V_{BE}	$V_{CE} = 2\text{V}$, $I_C = 1\text{A}$	–	0.38	–	V
Collector–Emitter Saturation Voltage	$V_{CE(\text{sat})}$	$I_C = 10\text{A}$, $I_B = 1\text{A}$	–	0.3	–	V
Transition Frequency	f_T	$V_{CB} = 2\text{V}$, $I_E = 1\text{A}$	–	300	–	kHz

