

NTE158 Germanium PNP Transistor Audio Power Amplifier

Description:

The NTE158 is a germanium PNP triode transistor in a TO1 type package designed for low-power, large signal audio applications.

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

Collector–Base Voltage, V_{CBO}	32V
Collector–Emitter Voltage ($R_{BE} \leq 500\Omega$), V_{CER}	32V
Emitter–Base Voltage, V_{EBO}	10V
Collector Current, I_C	1A
Base Current, I_B	40mA
Power Dissipation ($T_A = +25^\circ\text{C}$), P_C	550mW
Derate Above 25°C	0.3mW/ $^\circ\text{C}$
Storage Temperature Range, T_{stg}	-55° to $+90^\circ\text{C}$
Lead Temperature (During Soldering, 1/16" $\pm$ 1/32" from case for 5sec), T_L	$+245^\circ\text{C}$

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector–Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C = 200\mu\text{A}$, $I_E = 0$	32	–	–	V
Emitter–Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E = 200\mu\text{A}$, $I_C = 0$	10	–	–	V
Collector Cutoff Current	I_{CBO}	$V_{CB} = -10\text{V}$, $I_E = 0$	–	–	10	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB} = -5\text{V}$, $T_J = +75^\circ\text{C}$	–	–	500	μA
DC Current Gain	h_{FE}	$V_{CB} = 1\text{V}$, $I_C = 300\text{mA}$	60	90	175	
Base–Emitter Voltage	V_{BE}	$V_{CE} = 1\text{V}$, $I_C = 300\text{mA}$	280	–	380	mV
Forward Current Transfer Cutoff Frequency	f_{hfe}		10	–	20	kc
Output Capacitance	C_{ob}	$V_{CB} = -5\text{V}$, $I_E = 0$ @ 0.45mc	80	–	105	pF

