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## 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 $25^\circ\text{C}$ .....	0.3mW/ $^\circ\text{C}$
Storage Temperature Range, $T_{stg}$ .....	$-55^\circ$ 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	$\mu\text{A}$
Emitter Cutoff Current	$I_{EBO}$	$V_{EB} = -5\text{V}, T_J = +75^\circ\text{C}$	-	-	500	$\mu\text{A}$
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	$C_{ob}$	$V_{CB} = -5\text{V}, I_E = 0 @ 0.45\text{mc}$	80	-	105	pF

