



ELECTRONICS, INC.

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## NTE300 (NPN) & NTE307 (PNP) Silicon Complementary Transistors Audio Power Amplifier

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

Collector-Base Voltage, $V_{CBO}$ .....	50V
Collector-Emitter Voltage, $V_{CEO}$ .....	40V
Emitter-Base Voltage, $V_{EBO}$ .....	5V
Collector Current, $I_C$ .....	1.5A
Collector Power Dissipation ( $T_C = +25^\circ\text{C}$ ), $P_C$ .....	7W
Operating Junction Temperature, $T_J$ .....	+150°C
Storage Temperature Range, $T_{stg}$ .....	-55° to +150°C

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C = 1\text{mA}, I_E = 0$	50	-	-	V
Collector-Emitter Breakdown Voltage	$V_{(BR)EBO}$	$I_C = 10\text{mA}, R_{BE} = \infty$	40	-	-	V
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E = 1\text{mA}, I_C = 0$	5	-	-	V
Collector Cutoff Current	$I_{CBO}$	$V_{CB} = 25\text{V}, I_E = 0$	-	-	1	$\mu\text{A}$
Emitter Cutoff Current	$I_{EBO}$	$V_{EB} = 5\text{V}, I_C = 0$	-	-	1	$\mu\text{A}$
DC Current Gain	$h_{FE}$	$V_{CE} = 4\text{V}, I_C = 500\text{mA}$	55	-	300	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 1\text{A}, I_B = 50\text{mA}$	-	-	1	V
Base-Emitter Voltage	$V_{BE}$	$V_{CE} = 4\text{V}, I_C = 50\text{mA}$	-	0.7	-	V

