



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_{CB0}	50V
Collector–Emitter Voltage, V_{CE0}	40V
Emitter–Base Voltage, V_{EB0}	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	$V_{(BR)CB0}$	$I_C = 1\text{mA}, I_E = 0$	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_{CB0}	$V_{CB} = 25\text{V}, I_E = 0$	–	–	1	μA
Emitter Cutoff Current	I_{EB0}	$V_{EB} = 5\text{V}, I_C = 0$	–	–	1	μA
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

