



ELECTRONICS, INC.
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NTE58 (NPN) & NTE59 (PNP) Silicon Complementary Transistors High Power Audio Output

Features:

- High Power Dissipation
- Wide Safe Operating Area

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

Collector–Base Voltage, V_{CBO}	200V
Collector–Emitter Voltage, V_{CEO}	200V
Emitter–Base Voltage, V_{EBO}	6V
Continuous Collector Current, I_C	17A
Continuous Base Current, I_B	5A
Total Device Dissipation ($T_{FL} = +25^\circ\text{C}$), P_C	200W
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–Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = 50\text{mA}$	200	–	–	V
Maximum Collector Cutoff Current	I_{CBO}	$V_{CB} = 200\text{V}, I_E = 0$	–	–	0.1	mA
Maximum Emitter Cutoff Current	I_{EBO}	$V_{EB} = 6\text{V}, I_C = 0$	–	–	0.1	mA
DC Forward Current Transfer Ratio	h_{FE}	$V_{CE} = 4\text{V}, I_C = 8\text{A}$	20	–	–	
Collector–Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 10\text{A}, I_B = 1\text{A}$	–	–	2.5	V
Second Breakdown Collector Current	$I_{S/b}$	$V_{CE} = 100\text{V}, t = 1\text{sec}$	1	–	–	A
Cutoff Frequency	f_T	$V_{CE} = 12\text{V}, I_E = 1\text{A}$	–	20	–	MHz

