

## 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

