

NTE186A (NPN) & NTE187A (PNP) Silicon Complementary Transistors Medium Power Audio Amplifier

Features:

- 5W Output in Complementary Pair

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
Peak Collector Current, I_{CP}	3A
Base Current, I_B	600mA
Collector Power Dissipation ($T_C = +25^\circ\text{C}$), P_C	10W
Operating Junction Temperature, T_J	+150°C
Storage Temperature Range, T_{stg}	-55° to +150°C

Electrical Characteristics: ($T_C = +25^\circ\text{C}$ 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	$V_{(BR)CEO}$	$I_C = 10\text{mA}, I_B = 0$	40	–	–	V
Collector Cutoff Current	I_{CBO}	$V_{CB} = 20\text{V}, I_E = 0$	–	–	1	μA
	I_{CEO}	$V_{CE} = 12\text{V}, I_B = 0$	–	–	100	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB} = 5\text{V}, I_C = 0$	–	–	100	μA
DC Current Gain	h_{FE}	$V_{CE} = 5\text{V}, I_C = 1\text{A}$	50	120	220	
Transition Frequency	f_T	$V_{CE} = 5\text{V}, I_C = 500\text{mA}$	–	150	–	MHz
Base–Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C = 2\text{A}, I_B = 200\text{mA}$	–	–	1.5	V
Collector–Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 2\text{A}, I_B = 200\text{mA}$	–	0.4	1.0	V
Collector Output Capacitance	C_{ob}	$V_{CB} = 5\text{V}, I_E = 0, f = 1\text{MHz}$	–	50	–	pF

