

NTE2307 Silicon NPN Transistor High Gain Power Amp

Features:

- High Voltage
- High DC Current Gain
- High Collector Power Dissipation Capability

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

Collector–Base Voltage, V_{CBO}	200V
Collector–Emitter Voltage, V_{CEO}	180V
Emitter–Base Voltage, V_{EBO}	5V
Collector Current, I_C	5A
Base Current, I_B	2A
Collector Power Dissipation ($T_C = +25^\circ\text{C}$), P_C	80W
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 Cutoff Current	I_{CBO}	$V_{CB} = 200\text{V}, I_E = 0$	–	–	100	μA
	I_{CEO}	$V_{CE} = 180\text{V}, I_B = 0$	–	–	10	mA
Emitter Cutoff Current	I_{EBO}	$V_{EB} = 5\text{V}, I_C = 0$	–	–	100	μA
Collector–Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = 50\text{mA}, I_B = 0$	180	–	–	V
DC Current Gain	h_{FE}	$V_{CB} = 5\text{V}, I_C = 1\text{A}$	500	–	2000	
Collector–Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 1\text{A}, I_B = 20\text{mA}$	–	–	1.0	V
Base–Emitter Voltage	V_{BE}	$V_{CE} = 5\text{V}, I_C = 1\text{A}$	0.6	0.7	0.8	V

