



ELECTRONICS, INC.
 44 FARRAND STREET
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NTE2330

Silicon NPN Transistor

High Gain Amp ^w/Internal Zener Diode

Features:

- Excellent Wide Safe Operating Area
- Included Avalanche Diode
- 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}	55 (+15, –10) V
Collector–Emitter Voltage, V_{CEO}	55 (+15, –10) V
Emitter–Base Voltage, V_{EBO}	5V
Collector Current, I_C	
Continuous	4A
Peak	20A
Collector 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–Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C = 10\text{mA}, I_E = 0$	45	55	70	V
Collector–Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = 100\text{mA}, I_B = 0$	45	55	70	V
Emitter Cutoff Current	I_{EBO}	$V_{EB} = 5\text{V}, I_C = 0$	–	–	10	μA
DC Current Gain	h_{FE}	$V_{CE} = 5\text{V}, I_C = 500\text{mA}$	500	1000	2500	
Collector–Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 500\text{mA}, I_B = 2\text{mA}$	–	–	2.0	V
		$I_C = 1\text{A}, I_B = 20\text{mA}$	–	–	3.0	V
Base–Emitter Voltage	V_{BE}	$V_{CE} = 5\text{V}, I_C = 500\text{mA}$	0.50	0.65	0.80	V
Allowable Energy	E_T		80	–	–	W.sec

