

NTE2431 Silicon PNP Transistor High Voltage Amp/Switch (Compl to NTE2430)

Description:

The NTE2431 is a silicon PNP transistor in a SOT-89 type surface mount package designed for use in amplifier and switching applications.

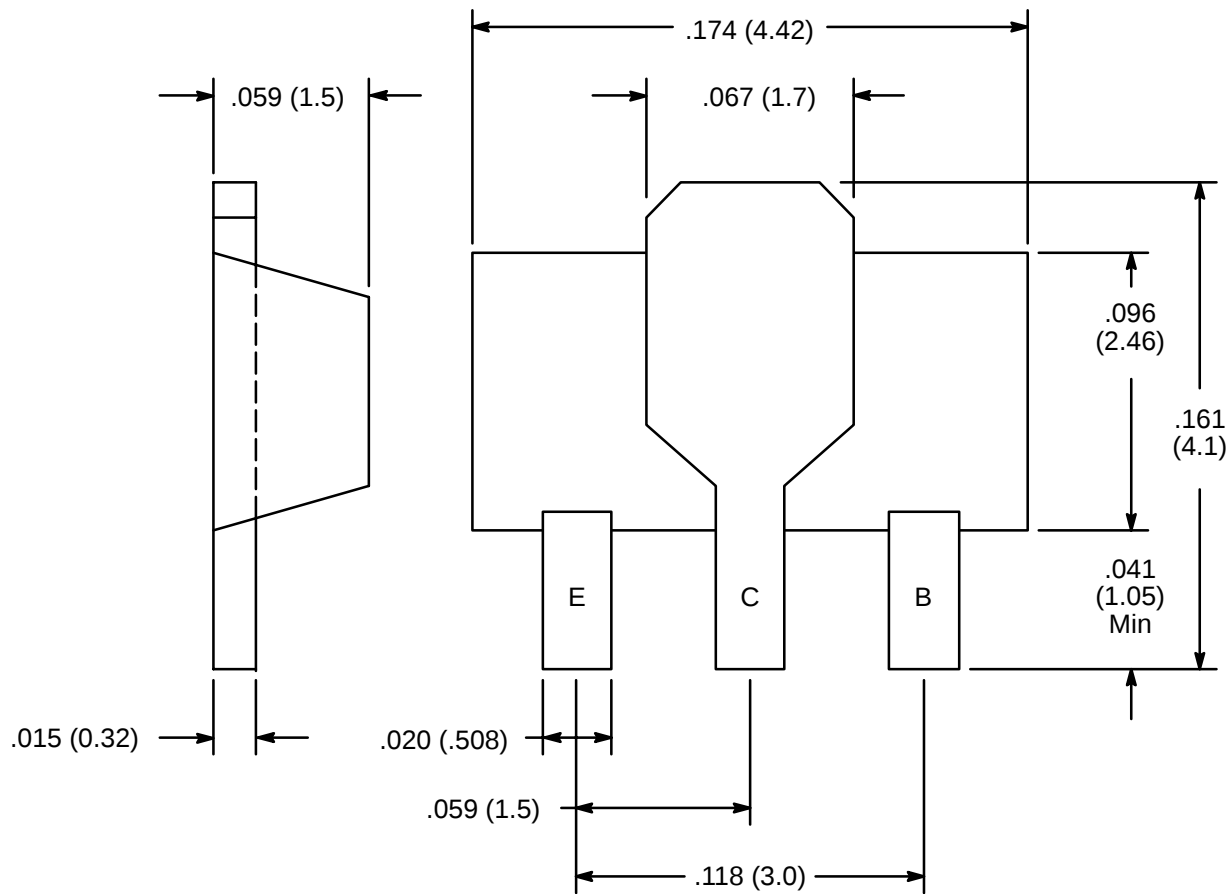
Absolute Maximum Ratings:

Collector-Base Voltage (Open Emitter), V_{CBO} 350V
 Collector-Emitter Voltage (Open Base), V_{CEO} 300V
 Emitter-Base Voltage (Open Collector), V_{EBO} 6V
 DC Collector Current, I_C 1A
 Base Current, I_B 500mA
 Total Power Dissipation ($T_A \leq +25^\circ\text{C}$, Note 1), P_{tot} 1W
 Operating Junction Temperature, T_J $+150^\circ\text{C}$
 Storage Temperature Range, T_{stg} -65° to $+150^\circ\text{C}$
 Thermal Resistance, Junction-to-Ambient (Note 1), R_{thJA} 125K/W
 Thermal Resistance, Junction-to-Tab, R_{thJTAB} 10K/W

Note 1. Device mounted on a ceramic substrate; area = 2.5cm^2 , thickness = 0.7mm.

Electrical Characteristics: ($T_J = +25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector Cutoff Current	I_{CBO}	$V_{CB} = 280\text{V}$, $I_E = 0$	—	—	1	μA
	I_{CEO}	$V_{CE} = 250\text{V}$, $I_B = 0$	—	—	50	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB} = 6\text{V}$, $I_C = 0$	—	—	20	μA
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = 50\text{mA}$, $I_B = 0$, $L = 25\text{mH}$	300	—	—	V
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 50\text{mA}$, $I_B = 5\text{mA}$	—	—	2	V
DC Current Gain	h_{FE}	$V_{CE} = 10\text{V}$, $I_C = 50\text{mA}$	30	—	120	
Collector Capacitance	C_c	$I_E = I_C = 0$, $V_{CB} = 10$, $f = 1\text{MHz}$	—	—	15	pF
Transitional Frequency	f_T	$V_{CE} = 10\text{V}$, $I_C = 10\text{mA}$, $f = 30\text{MHz}$	15	—	—	MHz



Bottom View