

# NTE225 Silicon NPN Transistor Linear Amplifier and High Speed Switch

#### **Description:**

The NTE225 is a silicon NPN transistor in a TO39 type package (with flange) designed for industrial and commercial equipment. Typical applications include high voltage differential and operational amplifiers, high voltage inverters, and high voltage, low current switching and series regulators.

#### Features:

- High Voltage Rating: V<sub>CEO(sus)</sub> = 350V Max.
- Low Saturation Voltage

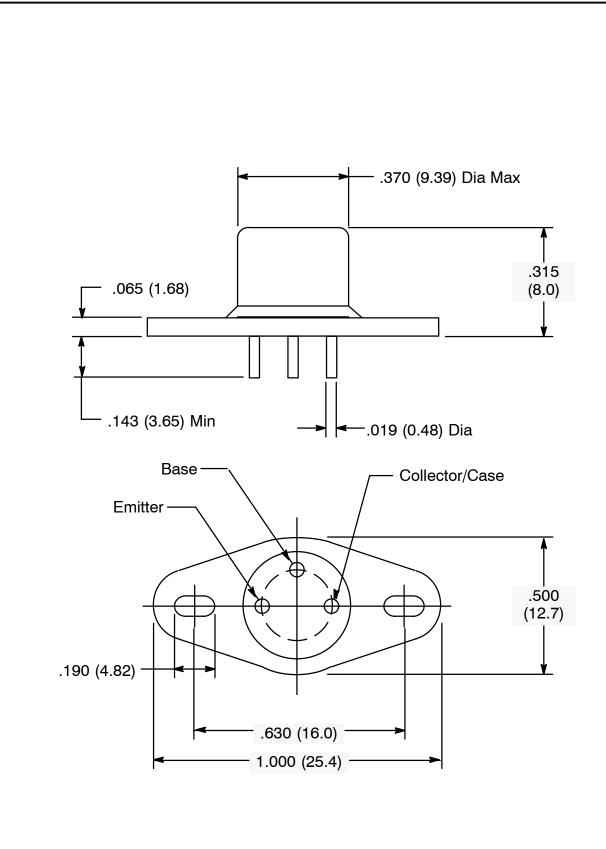
#### **Absolute Maximum Ratings:**

Collector-Base Voltage, V <sub>CBO</sub>	450V
Collector–Emitter Sustaining Voltage, V <sub>CEO(sus)</sub>	350V
Emitter-Base Voltage, V <sub>EBO</sub>	
Collector Current, I <sub>C</sub>	1A
Base Current, I <sub>B</sub>	500mA
Total Power Dissipation (T <sub>C</sub> = +25°C), P <sub>D</sub>	10W
Operating Junction Temperature Range, T <sub>J</sub>	−65° to +200°C
Storage Temperature Range, T <sub>stg</sub>	−65° to +200°C
Thermal Resistance, Junction-to-Case, RthJC	17.5°C/W
Lead Temperature (During Soldering, 1/32" from seating plane for 10sec Max, $T_L$ .	+255°C

### **<u>Electrical Characteristics:</u>** (T<sub>C</sub> = +25°C unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Тур	Max	Unit
Collector-Emitter Sustaining Voltage	V <sub>CEO(sus)</sub>	$I_C = 50$ mA, $I_B = 0$ , Base Open, Note 1	350	_	_	V
Collector Cutoff Current	I <sub>CEO</sub>	V <sub>CE</sub> = 300V, I <sub>B</sub> = 0	_	-	20	μΑ
	I <sub>CEV</sub>	$V_{CE} = 450V, V_{BE} = -1.5V$	_	-	500	μΑ
Emitter Cutoff Current	I <sub>EBO</sub>	$V_{BE} = 6V$ , $I_C = 0$	_	-	20	μΑ
DC Current Gain	h <sub>FE</sub>	V <sub>CE</sub> = 10V, I <sub>C</sub> = 20mA	40	_	160	
		V <sub>CE</sub> = 10V, I <sub>C</sub> = 2mA	30	_	_	
Collector-Emitter Saturation Voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> = 50mA, I <sub>B</sub> = 4mA	_	_	0.5	V
Base-Emitter Saturation Voltage	V <sub>BE(sat)</sub>	I <sub>C</sub> = 50mA, I <sub>B</sub> = 4mA	_	_	1.3	V
Small-Signal Current Gain	h <sub>fe</sub>	V <sub>CE</sub> = 10V, I <sub>C</sub> = 10mA, f = 5MHz	3	_	_	
Output Capacitance	C <sub>ob</sub>	V <sub>CB</sub> = 10V, I <sub>E</sub> = 0, f = 1MHz	_	_	10	pF
Second Breakdown Collector Current	I <sub>S/b</sub>	$V_{CE}$ = 200V, with Base Forward Biased	50	_	_	mA

Note 1. The sustaining voltage  $(V_{CEO(sus)})$  **MUST NOT** be measured on a curve tracer.



## **X-ON Electronics**

Largest Supplier of Electrical and Electronic Components

Click to view similar products for Bipolar Transistors - BJT category:

Click to view products by NTE manufacturer:

Other Similar products are found below:

619691C MCH4017-TL-H MJ15024/WS MJ15025/WS BC546/116 BC556/FSC BC557/116 BSW67A HN7G01FU-A(T5L,F,T NJVMJD148T4G NSVMMBT6520LT1G NTE187A NTE195A NTE2302 NTE2302 NTE2330 NTE2353 NTE316 IMX9T110 NTE63 NTE65 C4460 SBC846BLT3G 2SA1419T-TD-H 2SA1721-O(TE85L,F) 2SA1727TLP 2SA2126-E 2SB1202T-TL-E 2SB1204S-TL-E 2SC5488A-TL-H 2SD2150T100R SP000011176 FMC5AT148 2N2369ADCSM 2SB1202S-TL-E 2SC2412KT146S 2SC4618TLN 2SC5490A-TL-H 2SD1816S-TL-E 2SD1816T-TL-E CMXT2207 TR CPH6501-TL-E MCH4021-TL-E BC557B TTC012(Q) BULD128DT4 JANTX2N3810 Jantx2N5416 US6T6TR KSF350 068071B