



# NPN High Power Silicon Transistors

## 2N6249, 2N6250, 2N6251

### Features

- Available in JAN, JANTX, and JANTXV per MIL-PRF-19500/371
- TO-3 (TO-204AA) Package



### Maximum Ratings

Ratings	Symbol	2N6249	2N6250	2N6251	Units
Collector - Emitter Voltage	$V_{CEO}$	200	275	350	Vdc
Collector - Base Voltage	$V_{CBO}$	300	375	450	Vdc
Emitter - Base Voltage	$V_{EBO}$	6.0			Vdc
Collector Current	$I_C$	10			Adc
Base Current	$I_B$	5.0			Adc
Total Power Dissipation @ $T_A = +25^\circ\text{C}$ (1) @ $T_A = +25^\circ\text{C}$ (2)	$P_T$	6.0			W
		175			W
Operating & Storage Temperature Range	$T_{OP}, T_{stg}$	-65 to +200			$^\circ\text{C}$

### Thermal Characteristics

Characteristics	Symbol	Maximum	Units
Thermal Resistance, Junction-to-Case	$R_{\theta JC}$	1.25	$^\circ\text{C}/\text{W}$

1) Derate linearly @ 34.2 mW/ $^\circ\text{C}$  for  $T_A > +25^\circ\text{C}$

2) Derate linearly @ 1.0 mW/ $^\circ\text{C}$  for  $T_C > +75^\circ\text{C}$

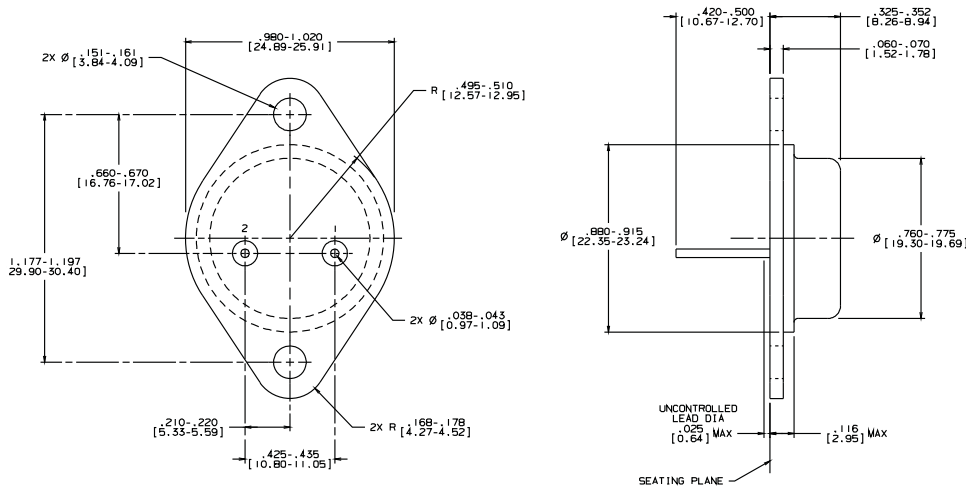
### Electrical Characteristics

OFF Characteristics	Symbol	Minimum	Maximum	Units	
Collector-Emitter Breakdown Voltage $I_C = 20 \text{ mAdc}, L = 42 \text{ mH}, f = 30\text{-}60 \text{ GHz}$ (See Figure 10 of MIL-PRF-19500/510)	2N6249 2N6250 2N6251	$I_{(BR)CEO}$	---	200 275 350	Vdc
Collector-Emitter Breakdown Voltage $I_C = 200 \text{ mAdc}, L = 14 \text{ mH}, f = 30\text{-}60 \text{ GHz}$ (See Figure 10 of MIL-PRF-19500/510)	2N6249 2N6250 2N6251	$I_{(BR)CER}$	---	225 300 375	Vdc
Emitter-Base Cutoff Current $V_{EB} = 6.0 \text{ Vdc}$		$I_{EBO}$	---	100	$\mu\text{Adc}$
Collector-Emitter Cutoff Current $V_{CE} = 150 \text{ Vdc}$ $V_{CE} = 225 \text{ Vdc}$ $V_{CE} = 225 \text{ Vdc}$	2N6249 2N6250 2N6251	$I_{CEO}$	---	1.0	mAdc
Collector-Emitter Cutoff Current $V_{CE} = 225 \text{ Vdc}, V_{BE} = -1.5 \text{ Vdc}$ $V_{CE} = 300 \text{ Vdc}, V_{BE} = -1.5 \text{ Vdc}$ $V_{CE} = 375 \text{ Vdc}, V_{BE} = -1.5 \text{ Vdc}$	2N6249 2N6250 2N6251	$I_{CEX}$	---	100	$\mu\text{Adc}$





Outline Drawing



- NOTES:  
 1. STANDARD HEADER TYPE SOLID BASE.  
 2. STANDARD LEAD FINISH PER MIL-M-58510 TYPE X OR EQUIVALENT.  
 3. LEAD NOT BENT GREATER THAN 15°.  
 4. DIMENSIONS BASED ON JEDEC STANDARD TO-3 PUBLICATION 95, PA

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