

Silicon Switching Diode

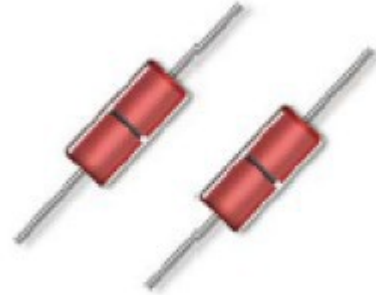
Rev. V1

Features

- Available in JAN, JANTX, and JANTXV per MIL-PRF-19500/231
- Metallurgically Bonded
- Hermetically Sealed
- Double Plug Construction

Maximum Ratings

Operating & Storage Temperature: -65°C to $+175^{\circ}\text{C}$
 Operating Current: 300 mA @ $T_A = +25^{\circ}\text{C}$
 Derating: 2 mA DC/ $^{\circ}\text{C}$ above $T_L = +75^{\circ}\text{C}$ @ $L = 3/8"$
 Surge Current A: 2 A (pk) $t_P = 8.3$ ms, $V_{RM} = 0$
 Surge Current B: 4 A (pk) $t_P = 1$ μs , $V_{RM} = 0$



Electrical Specifications @ $+25^{\circ}\text{C}$ (unless otherwise Specified)

| TYPE # | V_{BR} $I_R = 10 \mu\text{A}$ | V_{RWM} | I_{R1} $V_R = 50 \text{ Vdc}$ $T_A = 25^{\circ}\text{C}$ | I_{R2} $V_R = 50 \text{ Vdc}$ $T_A = 150^{\circ}\text{C}$ | C $I_R = 0$; $f = 1 \text{ MHz}$ ac signal = 50 mV (p-P) | T_{rr} $I_F = I_R = 10 \text{ to } 100 \text{ mA dc}$ $R_L = 100 \Omega$ |
|------------|------------------------------------|-----------|--|---|---|--|
| | V dc | V (pk) | $\mu\text{A dc}$ | $\mu\text{A dc}$ | pF | ns |
| 1N3600 | 75 | 50 | 0.1 | 100 | 2.5 | 4.0 |
| 1N4150, -1 | 75 | 50 | 0.1 | 100 | 2.5 | 4.0 |

Forward Voltage Limits - All Types

| Limits | V_{F1} $I_F = 1 \text{ mA dc}$ | V_{F2} $I_F = 10 \text{ mA dc}$ | V_{F3} $I_F = 50 \text{ mA dc}$ (Pulsed) | V_{F4} $I_F = 100 \text{ mA dc}$ (Pulsed) | V_{F5} $I_F = 200 \text{ mA dc}$ (Pulsed) |
|---------|-------------------------------------|--------------------------------------|--|---|---|
| | V dc | V dc | V dc | V dc | V dc |
| minimum | 0.540 | 0.660 | 0.760 | 0.820 | 0.870 |
| maximum | 0.620 | 0.740 | 0.860 | 0.920 | 1.000 |

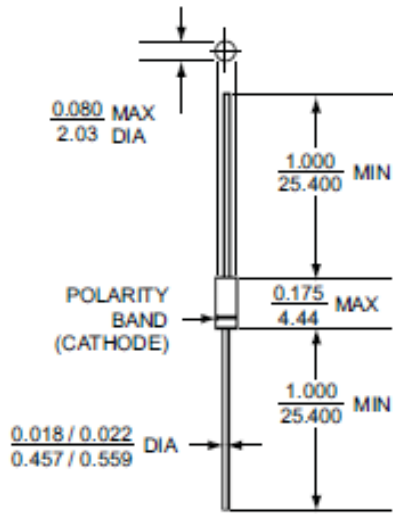
1N3600, 1N4150 & 1N4150-1



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Outline



LEADED DESIGN DATA

CASE: Hermetically sealed glass case per MIL-S-19500/231, DO – 35

LEAD MATERIAL: Copper clad steel

LEAD FINISH: Tin / Lead

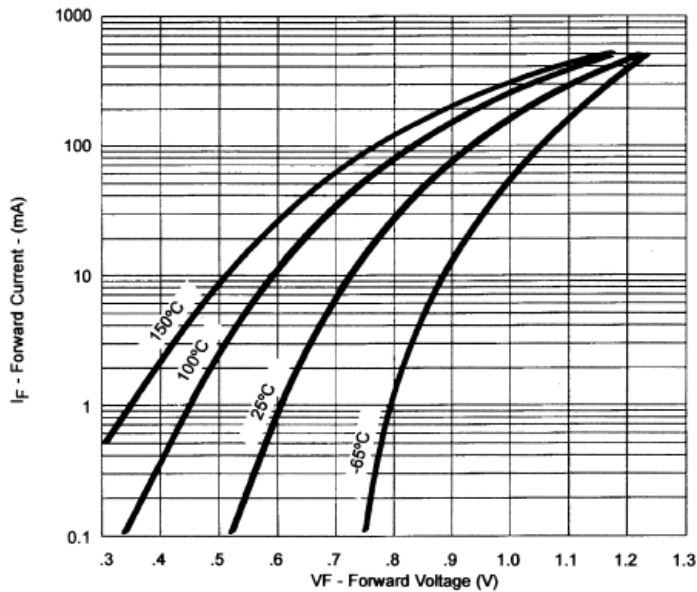
THERMAL RESISTANCE: ($R_{\theta JL}$): 250 °C/W maximum at L = 0.375 in

THERMAL IMPEDANCE: ($Z_{\theta JX}$): 70 °C/W maximum

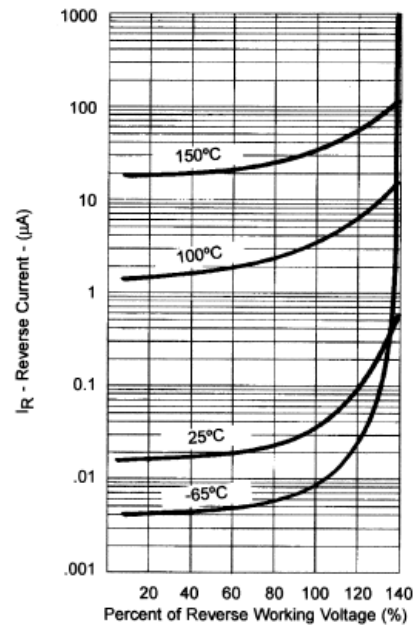
POLARITY: Cathode end is banded.

All dimensions in $\frac{\text{INCH}}{\text{mm}}$

Graphs



Typical Forward Current vs Forward Voltage



Typical Reverse Current vs Reverse Voltage

NOTE : All temperatures shown on graphs are junction temperatures

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