

## Silicon Switching Diode

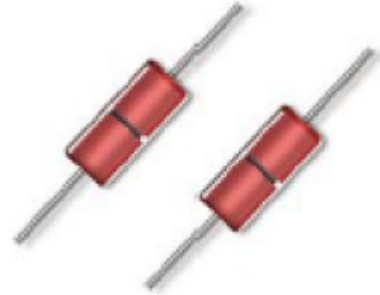
Rev. V1

### Features

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

### Maximum Ratings

Operating & Storage Temperature:  $-65^{\circ}\text{C}$  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)  $t_P = 1$   $\mu\text{s}$ ,  $V_{RM} = 0$



### 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

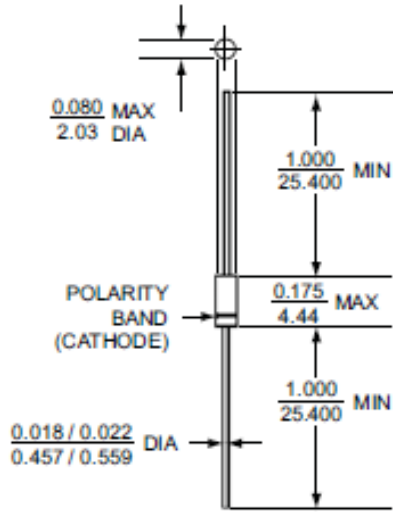
# 1N3600, 1N4150 & 1N4150-1



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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

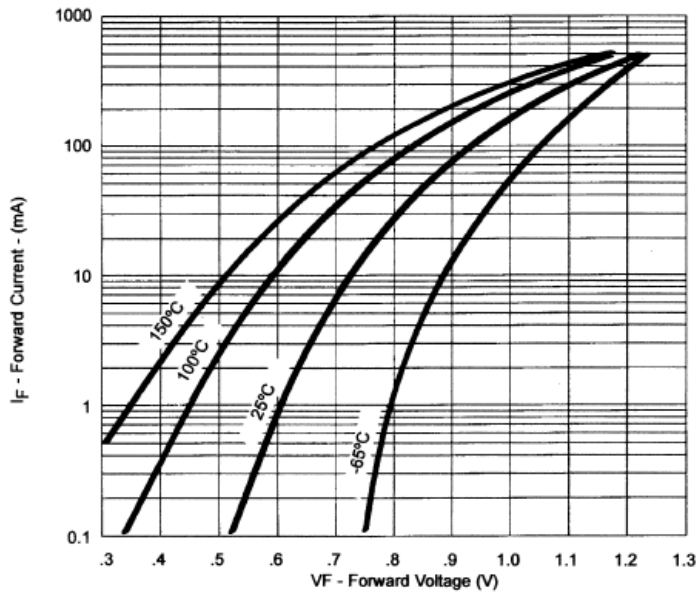
THERMAL RESISTANCE: ( $R_{\theta JL}$ ): 250 °C/W maximum at L = 0.375 in

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

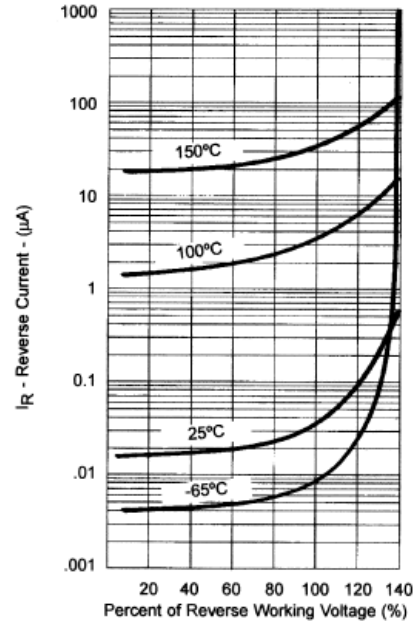
POLARITY: Cathode end is banded.

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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