

# Silicon Switching Diodes

## 1N4150, 1N4150-1 & 1N3600



### Features

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

### Maximum Ratings

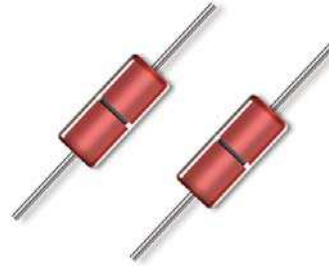
Operating & Storage Temperature:  $-65^{\circ}\text{C}$  to  $+175^{\circ}\text{C}$

Operating Current: 300 mA @  $T_A = +25^{\circ}\text{C}$

Derating: 2.0 mA dc/ $^{\circ}\text{C}$  Above  $T_L = +75^{\circ}\text{C}$  @  $L = 3/8''$

Surge Current A: 2A (pk)  $t_D = 8.3$  ms,  $V_{RM} = 0$

Surge Current B: 4A (pk)  $t_D = 1$  us,  $V_{RM} = 0$



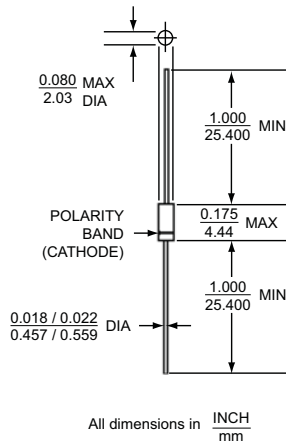
### Electrical Specifications @ $+25^{\circ}\text{C}$ (Unless Otherwise Specified)

TYPE Number	$V_{BR}$	$V_{RWM}$	$I_{R1}$	$I_{R2}$	C	$T_{rr}$
	$I_R = 10 \mu\text{A}$		$V_R = 50$ Vdc $T_A = 25^{\circ}\text{C}$	$V_R = 50$ Vdc $T_A = 150^{\circ}\text{C}$	$I_R = 0$ ; $f = 1$ MHz ac signal = 50 mV (p-P)	$I_F = I_R = 10$ to 100 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
1N4151, -1	75	50	0.1	100	2.5	4.0

### Forward Voltage Limits - All Types

Limits	$V_{F1}$	$V_{F2}$	$V_{F3}$	$V_{F4}$	$V_{F5}$
	$I_F = 1$ mA dc	$I_F = 10$ mA dc	$I_F = 50$ mA dc (Pulsed)	$I_F = 100$ mA dc (Pulsed)	$I_F = 200$ 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

### Outline Drawing



#### LEADED DESIGN DATA

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

**LEAD MATERIAL:** Copper clad steel

**LEAD FINISH:** Tin / Lead

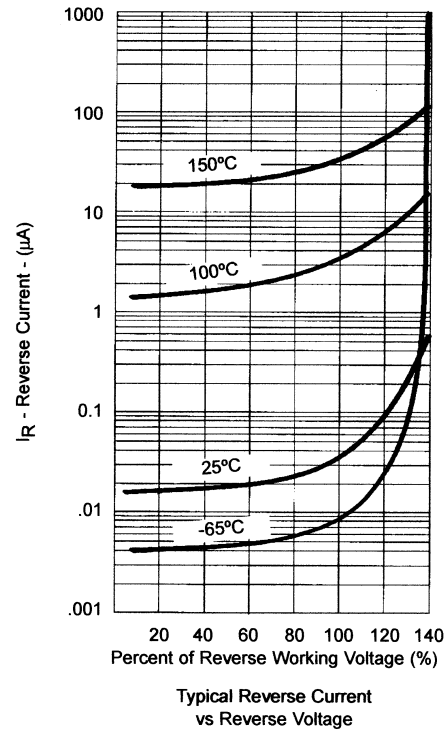
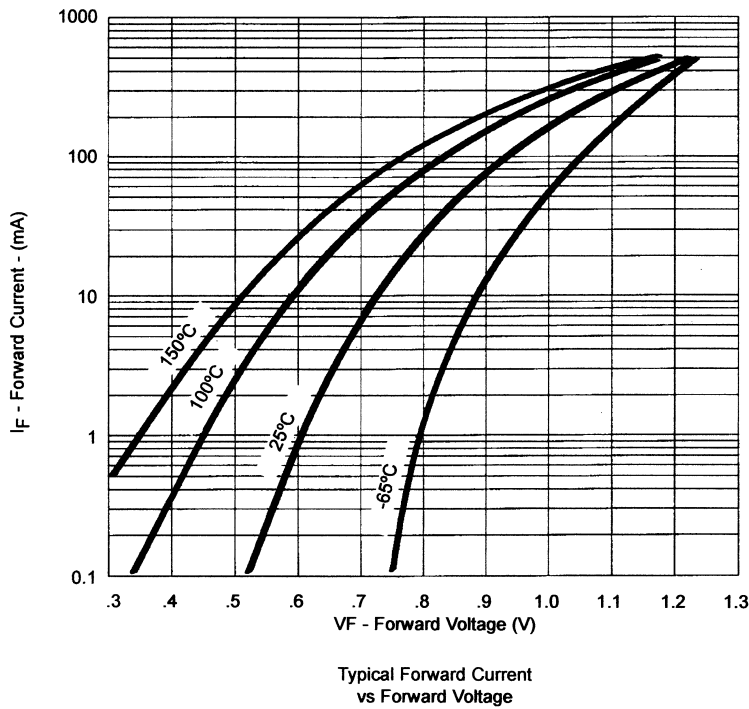
**THERMAL RESISTANCE:** ( $R_{\theta JL}$ ): 250  $^{\circ}\text{C}/\text{W}$  maximum at  $L = 0.375$  in

**THERMAL IMPEDANCE:** ( $Z_{\theta JX}$ ): 70  $^{\circ}\text{C}/\text{W}$  maximum

**POLARITY:** Cathode end is banded.



Graphs



**NOTE :** All temperatures shown on graphs are junction temperatures

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