

- 1N4150-1 AVAILABLE IN JAN, JANTX, AND JANTXV PER MIL-PRF-19500/231
- 1N3600 AVAILABLE IN JAN, JANTX, AND JANTXV PER MIL-PRF-19500/231
- SWITCHING DIODES
- HERMETICALLY SEALED
- METALLURGICALLY BONDED
- DOUBLE PLUG CONSTRUCTION

**1N4150  
and  
1N4150-1  
and  
1N3600**

### MAXIMUM RATINGS

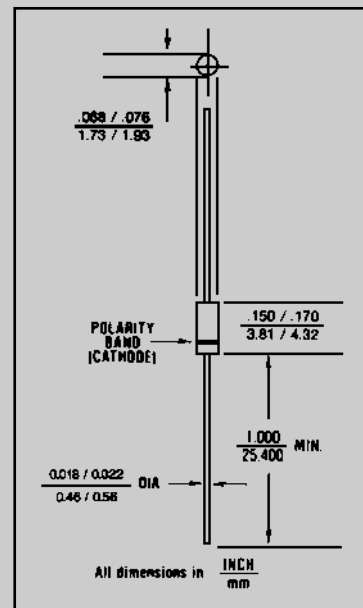
Junction Temperature: -65°C to +175°C  
 Storage Temperature: -65°C to +175°C  
 Operating Current: 300 mA @  $T_A = +25^\circ\text{C}$   
 Derating: 2.0 mA dc/°C Above  $T_L = +75^\circ\text{C}$  @  $L = 3/8"$   
 Forward Surge Current: 4A, ( $t_p = 1\mu\text{s}$ ); 0.5A ( $t_p = 1\text{s}$ )

### ELECTRICAL CHARACTERISTICS @ 25°C, unless otherwise specified.

| Type      | $V_{BR}$               | $V_{RWM}$ | $I_{R1}$  | $I_{R2}$   | C   | $t_{rr}$   |
|-----------|------------------------|-----------|---|--|---|--|
|           | $I_R = 10 \mu\text{A}$ |           | $V_R = 50 \text{ V dc}$<br>$T_A = 25^\circ\text{C}$ | $V_R = 50 \text{ V dc}$<br>$T_A = 150^\circ\text{C}$ | $V_R = 0$ ; $f = 1 \text{ Mhz}$ ;<br>ac signals = 50 mV (p-p) | $I_F = I_R = 10 \text{ to } 100 \text{ mA dc}$<br>$R_L = 100 \text{ ohms}$ |
|           | V dc                   | V (pk)    | $\mu\text{A dc}$                                    | $\mu\text{A dc}$                                     | pF  | ns   |
| 1N3600    | 75                     | 50        | 0.1   | 100  | 2.5   | 4  |
| 1N4150,-1 | 75                     | 50        | 0.1   | 100  | 2.5   | 4  |

### FORWARD VOLTAGE LIMITS – ALL TYPES

| Limits  | $V_{F1}$                | $V_{F2}$                 | $V_{F3}$                             | $V_{F4}$                              | $V_{F5}$                              |
|---------|-------------------------|--------------------------|--------------------------------------|---------------------------------------|---------------------------------------|
|         | $I_F = 1 \text{ mA dc}$ | $I_F = 10 \text{ mA dc}$ | $I_F = 50 \text{ mA dc}$<br>(Pulsed) | $I_F = 100 \text{ mA dc}$<br>(Pulsed) | $I_F = 200 \text{ mA dc}$<br>(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                                 |



**FIGURE 1**

### DESIGN DATA

**CASE:** Hermetically sealed glass case per MIL-S-19500/231 D0-35 outline.

**LEAD MATERIAL:** Copper clad steel.

**LEAD FINISH:** Tin / Lead

**THERMAL RESISTANCE:** ( $R_{\theta JL}$ ): 250 °C/W maximum at  $L = .375$

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

**POLARITY:** Cathode end is banded.

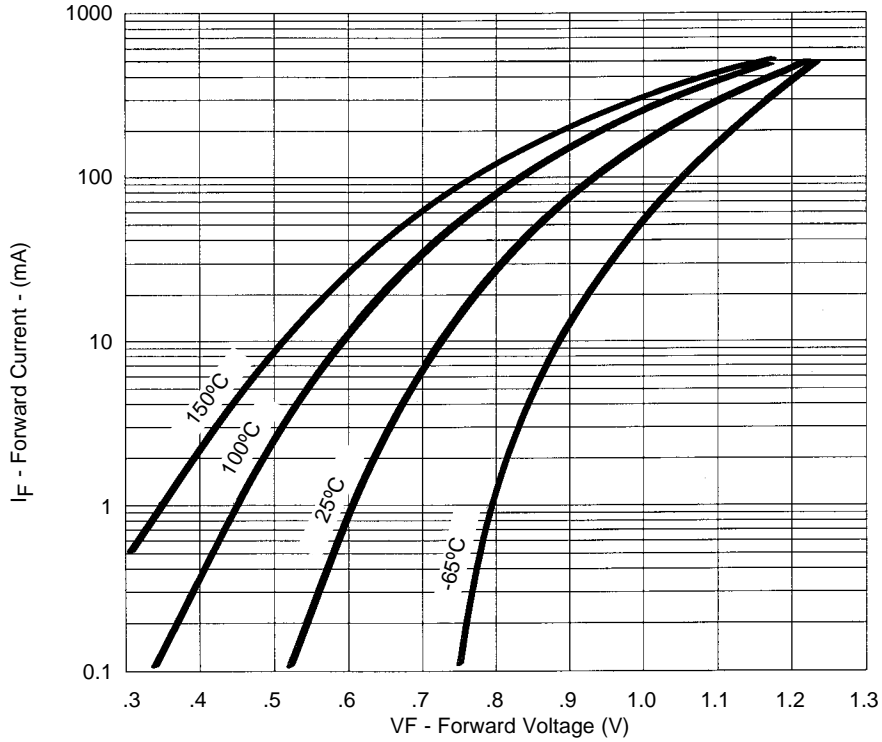
**MOUNTING POSITION:** Any.



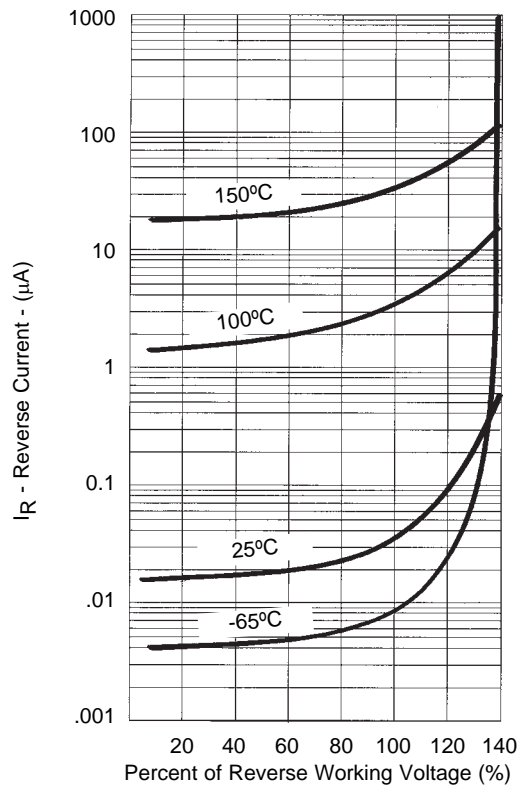
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# IN4150, IN4150-1 and IN3600



**FIGURE 2**  
Typical Forward Current  
vs Forward Voltage



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

**FIGURE 3**  
Typical Reverse Current  
vs Reverse Voltage