

- 1N4148-1 AVAILABLE IN JAN, JANTX, AND JANTXV  
PER MIL-PRF-19500/116
- SWITCHING DIODE
- HERMETICALLY SEALED
- METALLURGICALLY BONDED
- DOUBLE PLUG CONSTRUCTION

1N4148-1

### MAXIMUM RATINGS

Operating Temperature: -65°C to +200°C  
 Storage Temperature: -65°C to +200°C  
 Operating Current: 200 mA @  $T_A = +25^\circ\text{C}$   
 Derating Factor: 1.14 mA/°C Above  $T_A = +25^\circ\text{C}$   
 Surge Current A: 2A, sine wave,  $P_W = 8.3\text{ms}$   
 Surge Current B: 1.41A, square wave,  $P_W = 8.3\text{ms}$

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

$V_{BR}$ @100 $\mu\text{A}$	$V_{RWM}$	$I_0$	$V_f 1$ @ $I_F = 10 \text{ mA}$	$V_f 2$ @ $I_F = 100 \text{ mA}$	$t_{rr}$
Volts	Volts (pk)	mA	V dc	V dc	n sec
100	75	200	0.8	1.2	5

$I_{R1}$ @ 20 V dc	$I_{R2}$ @ 75 V dc	$I_{R3}$ @ 20 V $T_A = 150^\circ\text{C}$	$I_{R4}$ @ 75 V $T_A = 150^\circ\text{C}$	CAPACITANCE @ 0 V	CAPACITANCE @ 1.5 V
nA	$\mu\text{A}$	$\mu\text{A}$	$\mu\text{A}$	pF	pF
25	0.5	35	75	4.0	2.8

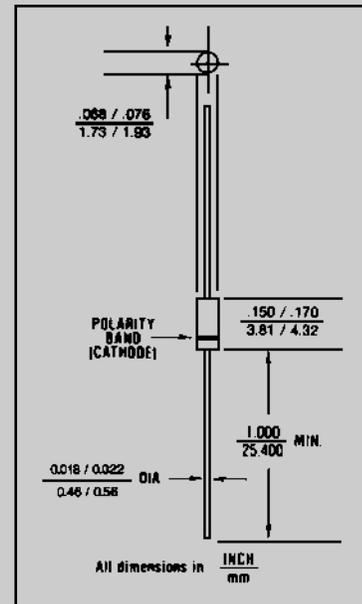


FIGURE 1

### DESIGN DATA

**CASE:** Hermetically sealed glass case per MIL-S-19500/116 D0-35 outline

**LEAD MATERIAL:** Copper clad steel.

**LEAD FINISH:** Tin / Lead

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

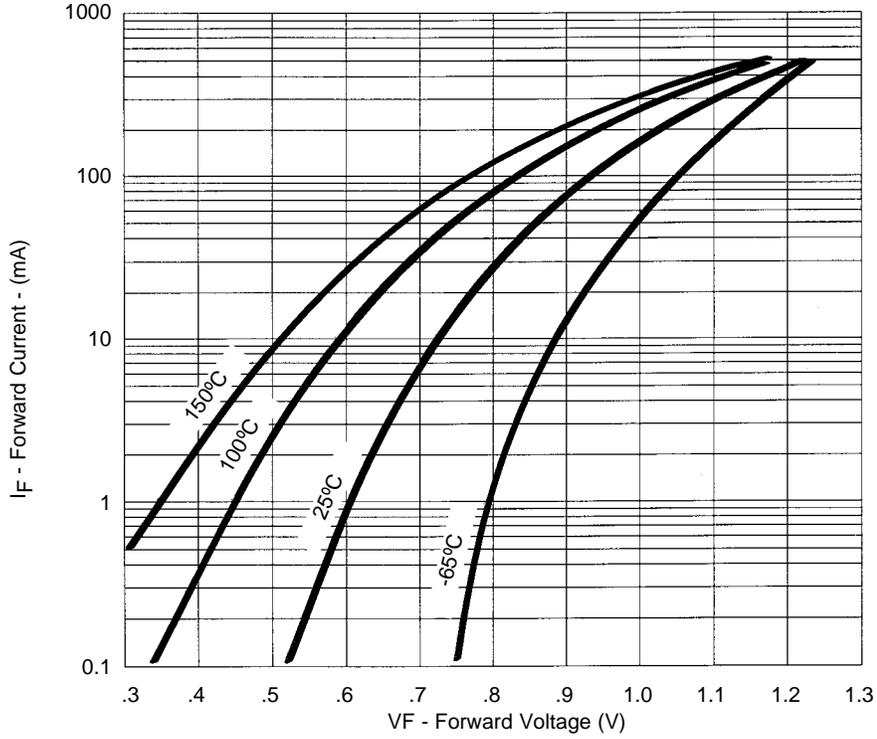
**THERMAL IMPEDANCE:** ( $Z_{\theta JX}$ ): 70 °C/W maximum

**POLARITY:** Cathode end is banded.

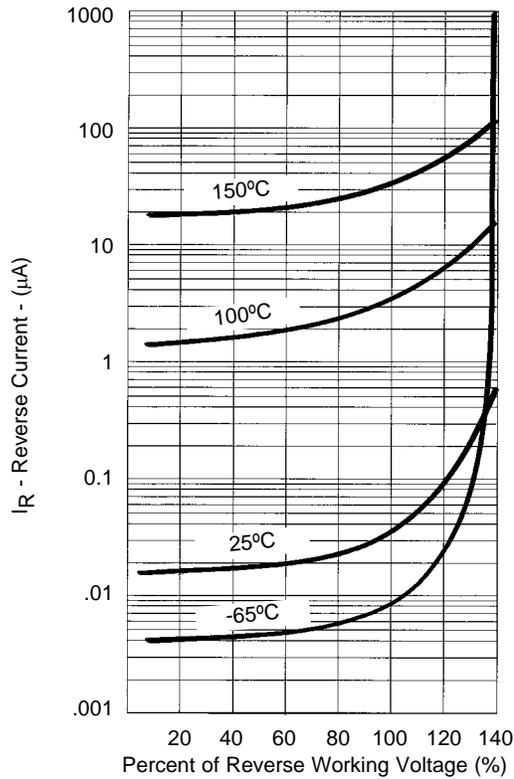
**MOUNTING POSITION:** Any.



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



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

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