

- 1N4148UR-1 AVAILABLE IN JAN, JANTX, AND JANTXV  
PER MIL-PRF-19500/116
- SWITCHING DIODE
- HERMETICALLY SEALED
- METALLURGICALLY BONDED
- DOUBLE PLUG CONSTRUCTION

# 1N4148UR-1 and CDLL4148

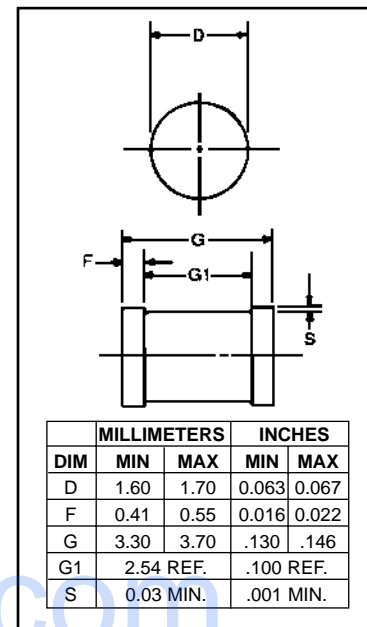
## MAXIMUM RATINGS

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 $\mu\text{A}$	$V_{RWM}$	$I_0$	$V_{f1}$ @ $I_F = 10\text{ mA}$	$V_{f2}$ @ $I_F = 100\text{ mA}$	$t_{rr}$ (Note 1)
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:** DO-213AA, Hermetically sealed glass case. (MELF, SOD-80, LL34)

**LEAD FINISH:** Tin / Lead

**THERMAL RESISTANCE ( $R_{\theta JEC}$ ):**  
100 °C/W maximum AT L = 0

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

**POLARITY:** Cathode end is banded.

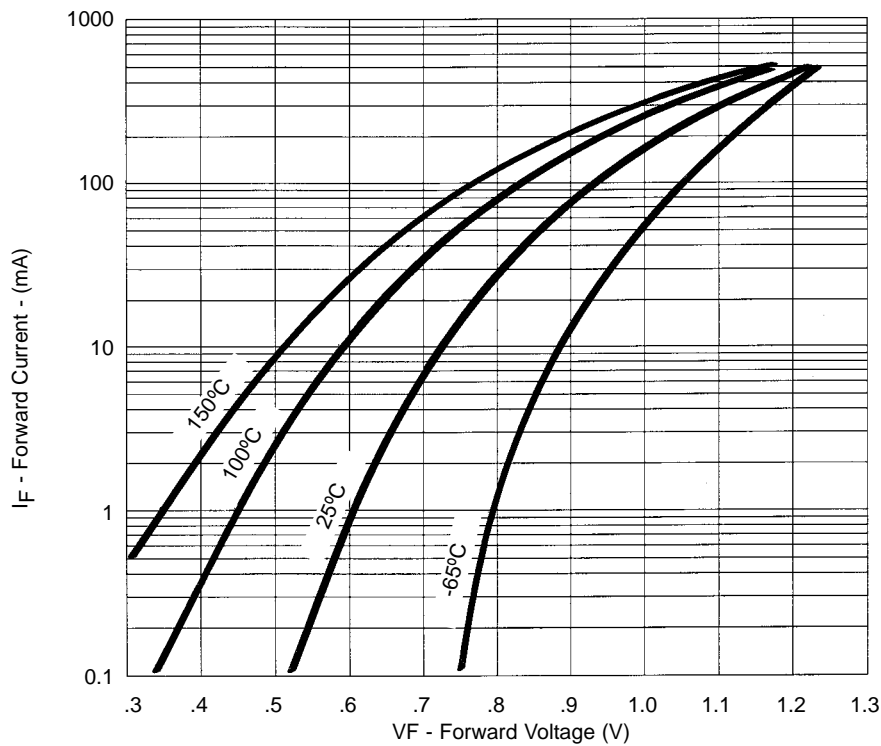
**MOUNTING SURFACE SELECTION:**  
The Axial Coefficient of Expansion (COE) Of this Device is Approximately +6PPM/°C. The COE of the Mounting Surface System Should Be Selected To Provide A Suitable Match With This Device.



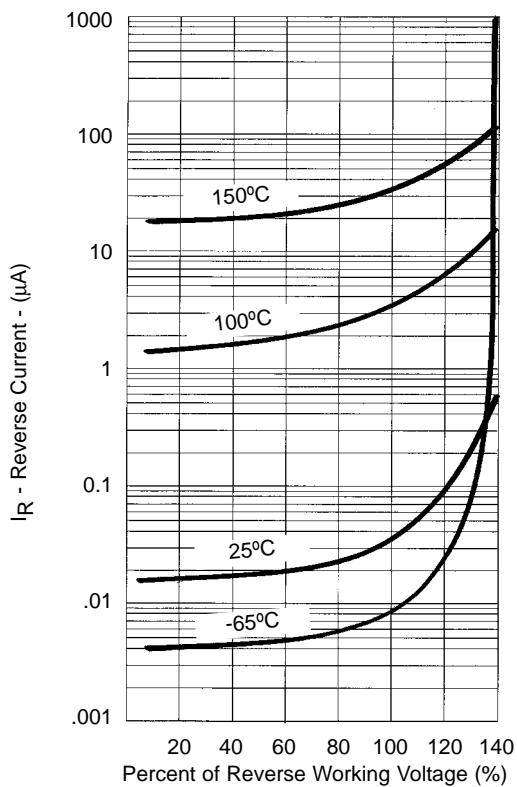
**COMPENSATED DEVICES INCORPORATED**

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# IN4148UR-1 and CDLL4148



**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