

# 1N914 & 1N4148-1



## Silicon Switching Diode

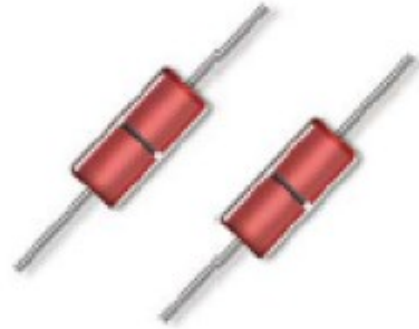
Rev. V1

### Features

- Available in JAN, JANTX, and JANTXV per MIL-PRF-19500/116
- Metallurgically Bonded
- Hermetically Sealed
- Double Plug Construction

### Maximum Ratings

Operating & 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: 2.00 A, sinewave,  $P_w = 8.3$  ms

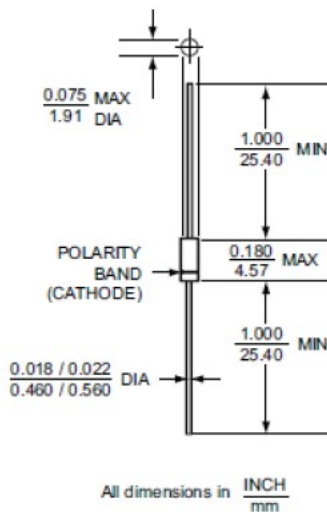


### Electrical Specifications @ +25°C (unless otherwise Specified)

JEDEC TYPE#	VBR @ 100 $\mu\text{A}$	VRWM	IO	Vf1 IF = 10 mA	Vf2 IF = 50 mA	Trr <sup>1</sup>	IR1 @ 20 Vdc	IR2 @ 75 Vdc	IR3 @ 20 Vdc $T_A = 150^\circ\text{C}$	IR4 @ 75 Vdc $T_A = 150^\circ\text{C}$	Capacitance @ 0 V	Capacitance @ 1.5 V
	Volts	Volts (pk)	mA	Vdc	Vdc	nsec	nA	$\mu\text{A}$	$\mu\text{A}$	$\mu\text{A}$	pF	pF
1N914	100	75	75	0.8	1.2	5	25	0.5	35	75	4.0	2.8
1N4148-1	100	75	200	0.8	1.2	5	35	0.5	35	75	4.0	2.8

1. IF = IR = 10 mA, RL = 100 ohms.

### Outline Drawing



#### LEADED DESIGN DATA

CASE: Hermetically sealed glass case per MIL-S-19500/116, DO – 35

LEAD MATERIAL: Copper clad steel

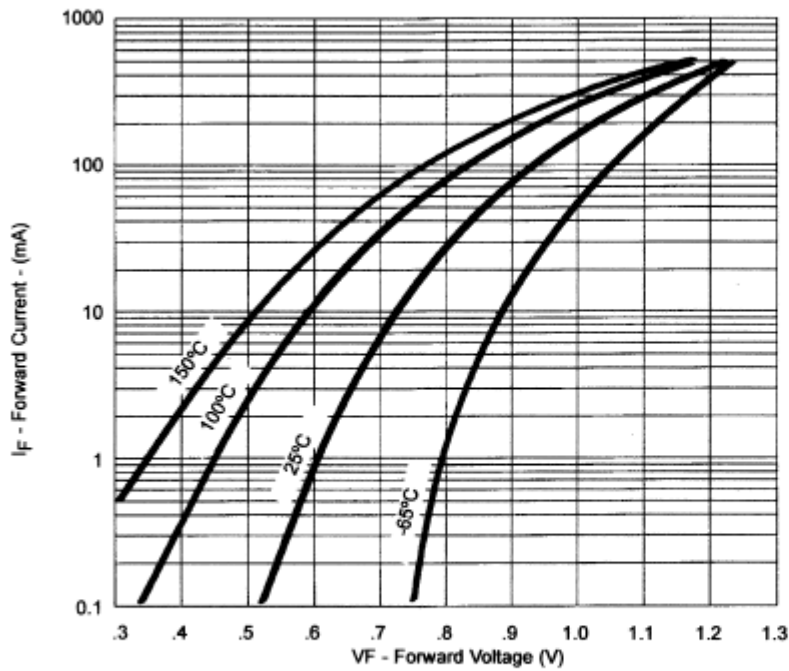
LEAD FINISH: Tin / Lead

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

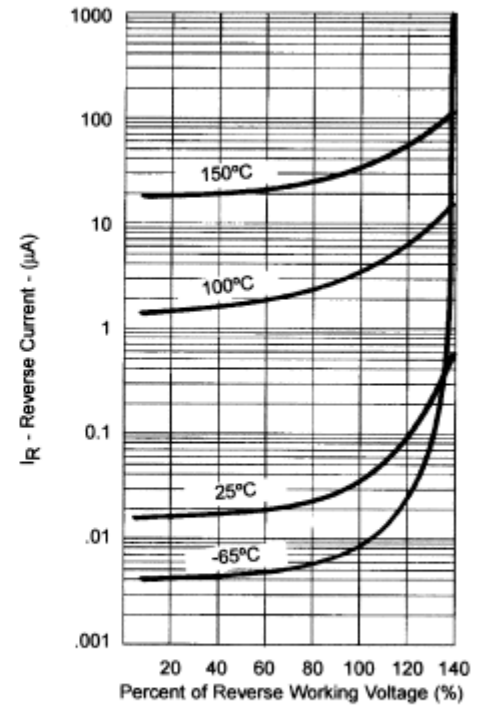
THERMAL IMPEDANCE: ( $Z_{\theta JX}$ ): 70 °C/W maximum

POLARITY: Cathode end is banded.

### Graphs



Typical Forward Current vs Forward Voltage



Typical Reverse Current vs Reverse Voltage

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

M/A-COM Technology Solutions Inc. All rights reserved.

Information in this document is provided in connection with M/A-COM Technology Solutions Inc ("MACOM") products. These materials are provided by MACOM as a service to its customers and may be used for informational purposes only. Except as provided in MACOM's Terms and Conditions of Sale for such products or in any separate agreement related to this document, MACOM assumes no liability whatsoever. MACOM assumes no responsibility for errors or omissions in these materials. MACOM may make changes to specifications and product descriptions at any time, without notice. MACOM makes no commitment to update the information and shall have no responsibility whatsoever for conflicts or incompatibilities arising from future changes to its specifications and product descriptions. No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document.

THESE MATERIALS ARE PROVIDED "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, RELATING TO SALE AND/OR USE OF MACOM PRODUCTS INCLUDING LIABILITY OR WARRANTIES RELATING TO FITNESS FOR A PARTICULAR PURPOSE, CONSEQUENTIAL OR INCIDENTAL DAMAGES, MERCHANTABILITY, OR INFRINGEMENT OF ANY PATENT, COPYRIGHT OR OTHER INTELLECTUAL PROPERTY RIGHT. MACOM FURTHER DOES NOT WARRANT THE ACCURACY OR COMPLETENESS OF THE INFORMATION, TEXT, GRAPHICS OR OTHER ITEMS CONTAINED WITHIN THESE MATERIALS. MACOM SHALL NOT BE LIABLE FOR ANY SPECIAL, INDIRECT, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, INCLUDING WITHOUT LIMITATION, LOST REVENUES OR LOST PROFITS, WHICH MAY RESULT FROM THE USE OF THESE MATERIALS.

MACOM products are not intended for use in medical, lifesaving or life sustaining applications. MACOM customers using or selling MACOM products for use in such applications do so at their own risk and agree to fully indemnify MACOM for any damages resulting from such improper use or sale.