1N5139(A) thru 1N5148(A)

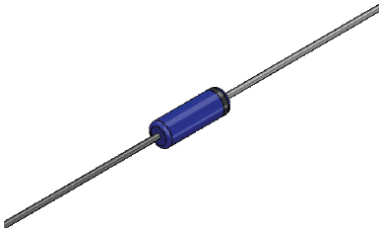
Silicon Abrupt Varactors
General Purpose

Rev. V1

Features

- 1N5139A - 1N5148A are Military Approved for JAN, JANTX, JANTXV per MIL-PRF-19500
- Hermetically Sealed Glass, DO-7
- Flexible Axial-lead Mounting Terminals
- RoHS* Compliant

Hermetically Sealed Glass, DO-7



Electrical Specifications: T_A = +25°C

Model	Capacitance @ -4 Vdc, 1 MHz pF			Capacitance Ratio C_T 2 V / C_T 60 V	Quality Factor @ 4 Vdc, 50 MHz Q
	Min.	Typ.	Max.	Min.	Min.
1N5139	6.12	6.8	7.48	2.7	350
1N5139A	6.46	6.8	7.14	2.7	350
1N5140	9.0	10.0	11.0	2.8	300
1N5140A	9.5	10.0	10.5	2.8	300
1N5141	10.8	12.0	13.2	2.8	300
1N5141A	11.4	12.0	12.6	2.8	300
1N5142	13.5	15.0	16.5	2.8	250
1N5142A	14.3	15.0	15.7	2.8	250
1N5143	16.2	18.0	19.8	2.8	250
1N5143A	17.1	18.0	18.9	2.8	250
1N5144	19.8	22.0	24.2	3.2	200
1N5144A	20.9	22.0	23.1	3.2	200
1N5145	24.3	27.0	29.7	3.2	200
1N5145A	25.7	27.0	28.3	3.2	200
1N5146	29.7	33.0	36.3	3.2	200
1N5146A	31.4	33.0	34.6	3.2	200
1N5147	6.1	39.0	42.9	3.2	200
1N5147A	37.1	39.0	40.9	3.2	200
1N5148	42.3	47.0	51.7	3.2	200
1N5148A	44.7	47.0	49.3	3.2	200

* Restrictions on Hazardous Substances, European Union Directive 2011/65/EU.

M/A-COM Technology Solutions Inc. (MACOM) and its affiliates reserve the right to make changes to the product(s) or information contained herein without notice.
Visit www.macom.com for additional data sheets and product information.

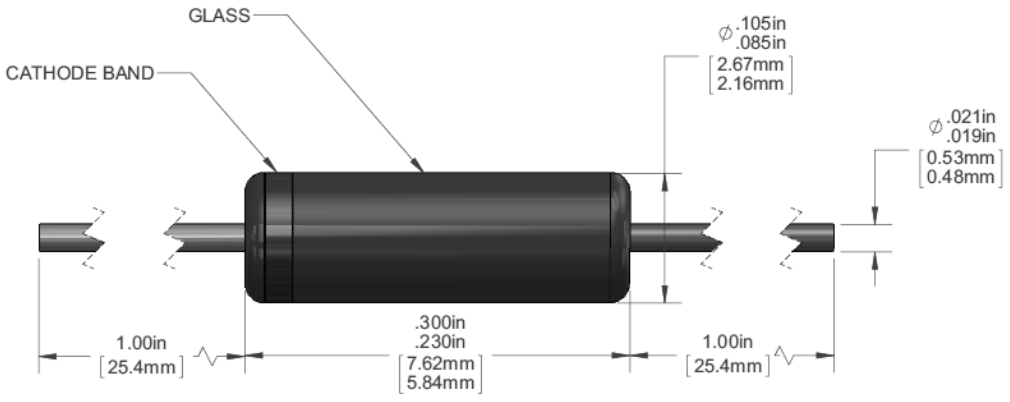
For further information and support please visit:
https://www.macom.com/support

Absolute Maximum Ratings[1,2]

Parameter	Absolute Maximum
DC Power Dissipation	400 mW
Forward Current	250 mA
Minimum Reverse Breakdown Voltage	65 Vdc @ I_R = 10 µAdc
Reverse Current	20 µAdc @ V_R = 55 Vdc, T_A = 25°C 20 µAdc @ V_R = 55 Vdc, T_A = 150°C
Temperature Coefficient of Capacitance	3% / °C @ V_R = 4 Vdc, T_A = -40°C to +85°C
Operating Temperature	-65°C to +175°C
Storage Temperature	-65°C to +200°C
Voltage Tolerance	+10% Standard Device +5% Suffix A

1. Exceeding any one or combination of these limits may cause permanent damage to this device.
2. MACOM does not recommend sustained operation near these survivability limits.

Hermetically Sealed Glass, DO-7



Lead Material: copper clad steel
Lead Finish: tin/lead
Marking: part number and cathode band
Weight: 0.2 grams
Polarity: diode to be operated with the cathode band end negative
Mounting Position: any

M/A-COM Technology Solutions Inc. (MACOM) and its affiliates reserve the right to make changes to the product(s) or information contained herein without notice.
Visit www.macom.com for additional data sheets and product information.

For further information and support please visit:
https://www.macom.com/support

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 estoppels 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.