1N5139(A) thru 1N5148(A)

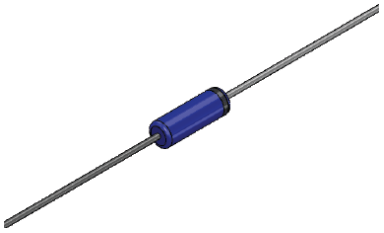
Silicon Abrupt Varactors
General Purpose

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

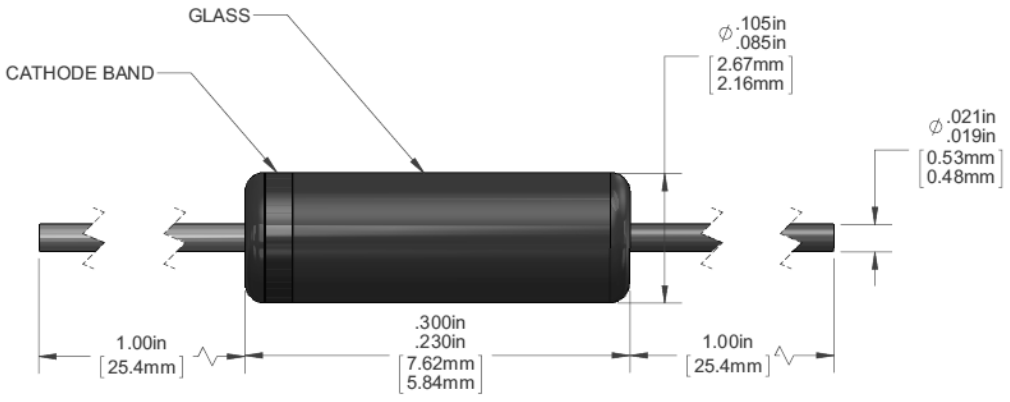
* Restrictions on Hazardous Substances, European Union Directive 2011/65/EU.

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