

Silicon NIP Diode

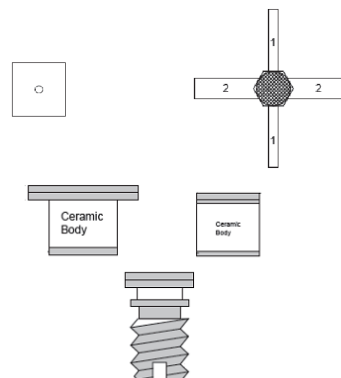
Rev. V3

Features

- Rugged Construction
- Fully Passivated
- Low Leakage
- Available in Both Chip and Package Styles
- Screening per MIL-PRF-19500 and MIL-PRF-38534 Available

Description

The MNP0008 Series are silicon NIP diodes that features a fully passivated mesa construction for low leakage and reliability.

Electrical Specifications: $T_C = +25^\circ\text{C}$

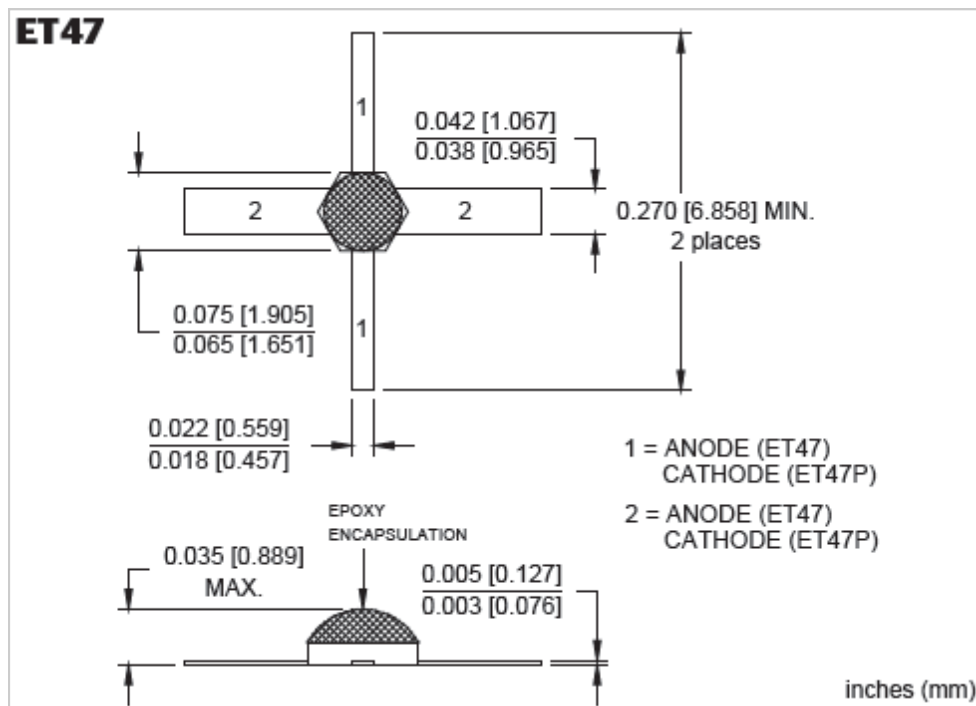
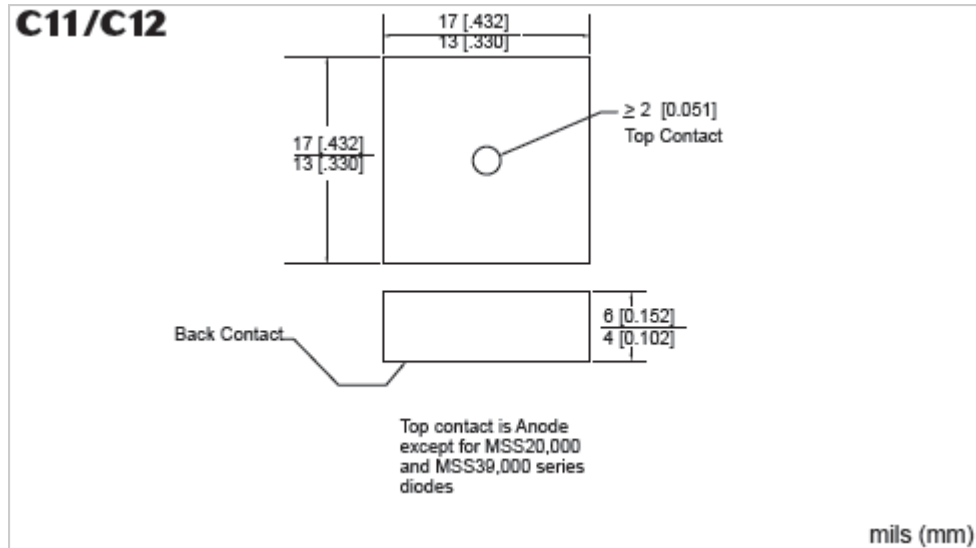
Parameter	Test Conditions	Units	Min.	Typ.	Max.
Voltage Breakdown	$I_R = 10\ \mu\text{A}$	V	100	—	—
Junction Capacitance DIE Package (C12p)	$V_R = 10\ \text{V}$, 1 MHz	pF	—	0.08	0.12
Total Capacitance Package Style: ET47p T54p T55p T89p	$V_R = 10\ \text{V}$, 1 MHz	pF	—	0.48 0.28 0.21 0.33	0.60 0.37 0.29 0.43
Series Resistance	$I_F = 10\ \text{mA}$, 500 MHz	Ω	—	2.0	2.5
Lifetime	$I_F = 10\ \text{mA}$, $I_R = 6\ \text{mA}$, 50%	ns	—	150	—
I Layer	—	μm	—	10	—

Absolute Maximum Ratings^{1,2}

Parameter	Absolute Maximum
Reverse Voltage	100 V
Thermal Resistance	+50°C/W
Operating & Storage Temperature	-65°C to +150°C

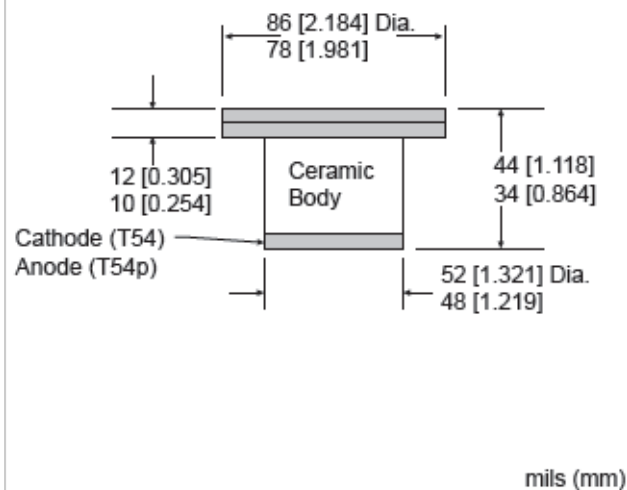
1. Exceeding any one or combination of these limits may cause permanent damage to this device.
2. MACOM does not recommend sustained operation near these survivability limits.

Outline Drawings

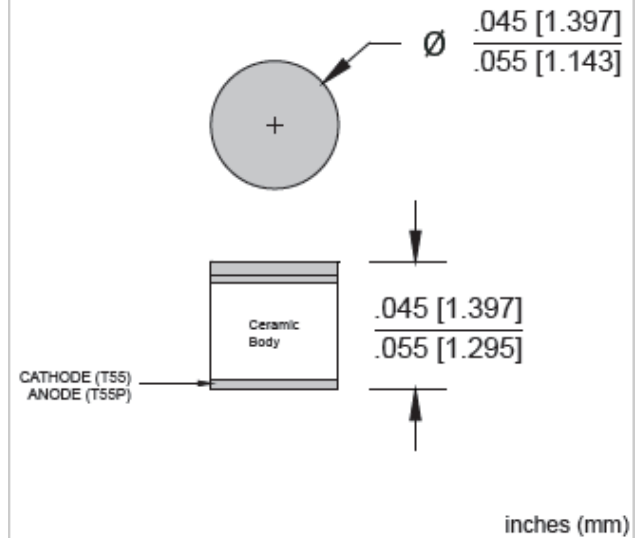


Outline Drawings

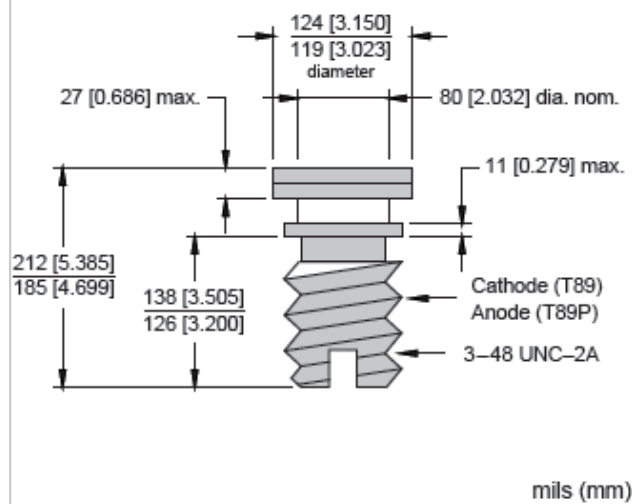
T54 / T54p



T55 / T55p



T89 / T89p



MACOM Technology Solutions Inc. All rights reserved.

Information in this document is provided in connection with MACOM 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.