

## Silicon NIP Diode

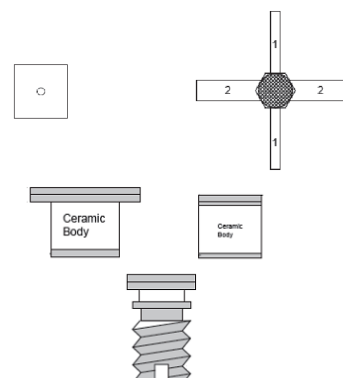
Rev. V3

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

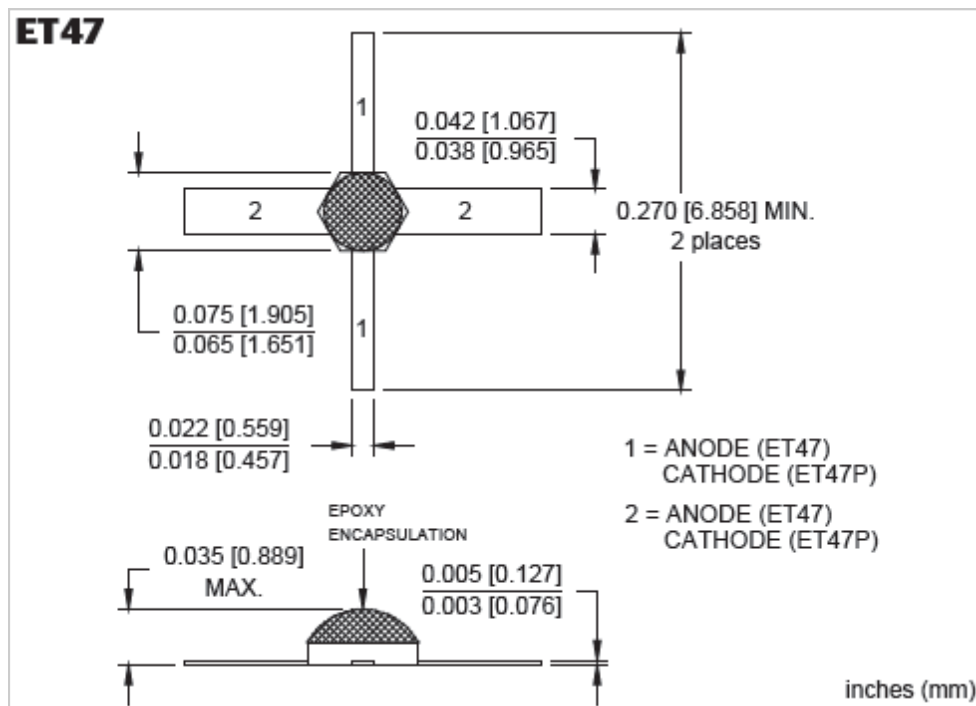
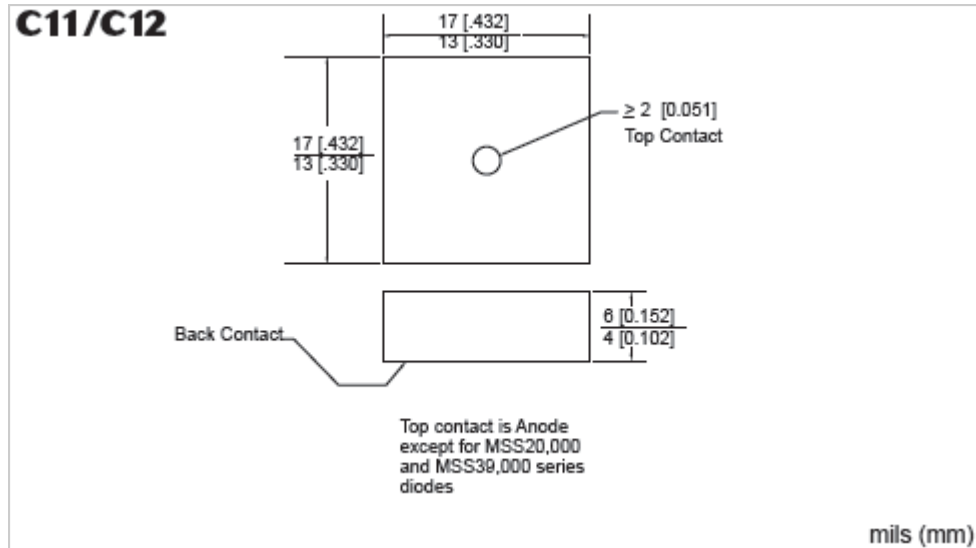
Parameter	Test Conditions	Units	Min.	Typ.	Max.
Voltage Breakdown	$I_R = 10 \mu\text{A}$	V	100	—	—
Junction Capacitance DIE Package (C12p)	$V_R = 10 \text{ V}$ , 1 MHz	pF	—	0.08	0.12
Total Capacitance Package Style: ET47p T54p T55p T89p	$V_R = 10 \text{ V}$ , 1 MHz	pF	—	0.48 0.28 0.21 0.33	0.60 0.37 0.29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

Absolute Maximum Ratings<sup>1,2</sup>

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

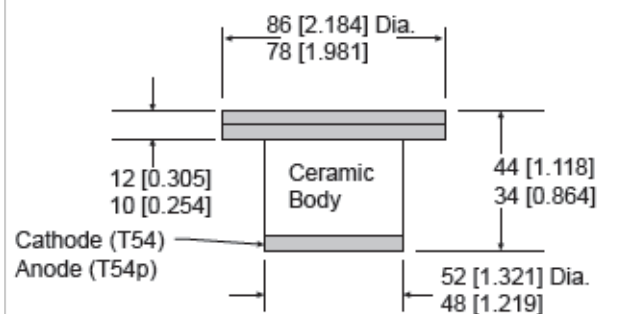
1. Exceeding any one or combination of these limits may cause permanent damage to this device.
2. MACOM does not recommend sustained operation near these survivability limits.

### Outline Drawings



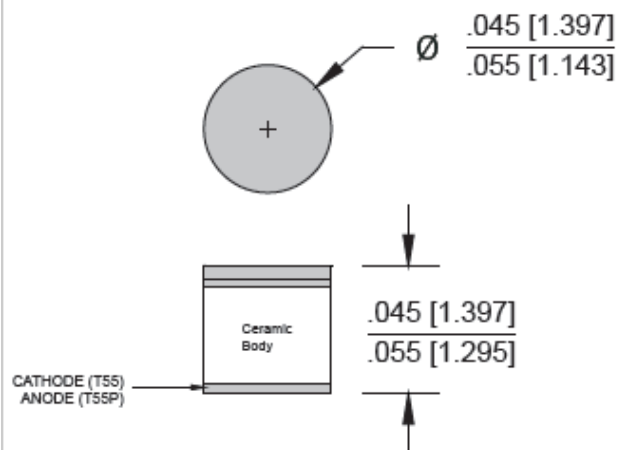
### Outline Drawings

#### T54 / T54p



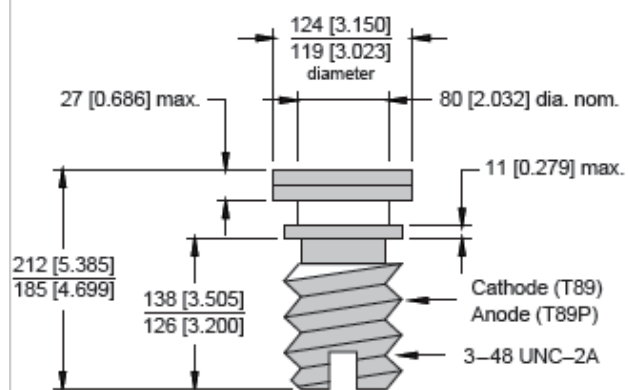
mils (mm)

#### T55 / T55p



inches (mm)

#### T89 / T89p



mils (mm)

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