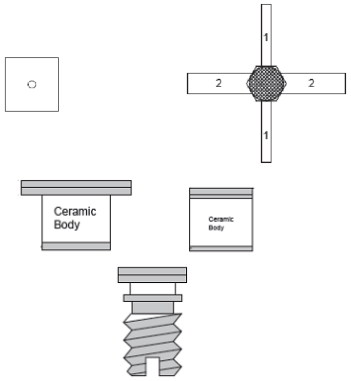
MNP0014

Silicon NIP Diode

Rev. V2

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 MNP0014 Series are silicon NIP diodes that features a fully passivated mesa construction for low leakage and reliability.

Electrical Specifications: T_C = +25°C

Parameter	Test Conditions	Units	Min.	Typ.	Max.
Voltage Breakdown	I_R = 10 µA	V	500	—	—
Junction Capacitance DIE Package (C22p)	V_R = 50 V, 1 MHz	pF	—	0.12	0.18
Total Capacitance Package Style: ET47p T54p T55p T89p	V_R = 50 V, 1 MHz	pF	—	 0.52 0.32 0.25 0.37	 0.58 0.38 0.31 0.43
Series Resistance	I_F = 100 mA, 500 MHz	Ω	—	1.3	1.6
Lifetime	I_F = 10 mA, I_R = 6 mA, 50%	ns	—	750	—
I Layer	—	µm	—	80	—

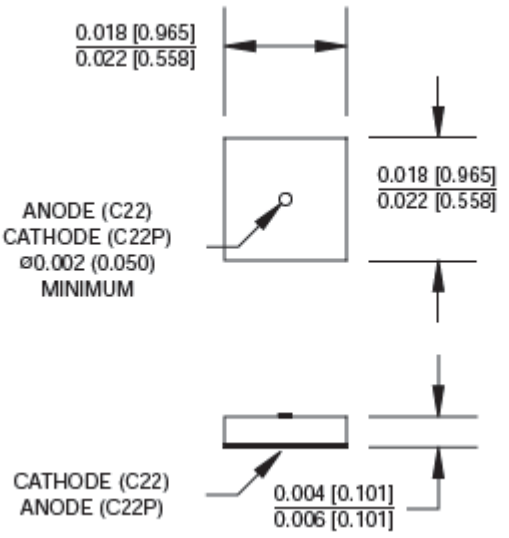
Absolute Maximum Ratings[1,2]

Parameter	Absolute Maximum
Reverse Voltage	500 V
Thermal Resistance	+10°C/W
Operating & Storage Temperature	-65°C to +150°C

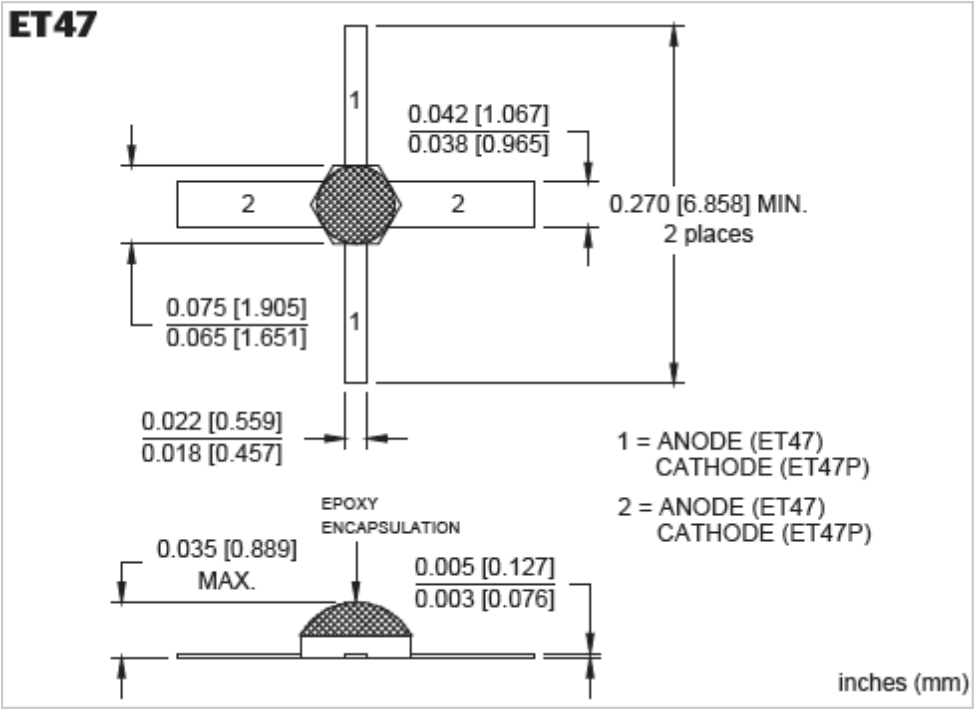
1. Exceeding any one or combination of these limits may cause permanent damage to this device.
2. MACOM does not recommend sustained operation near these survivability limits.

Outline Drawings

C22

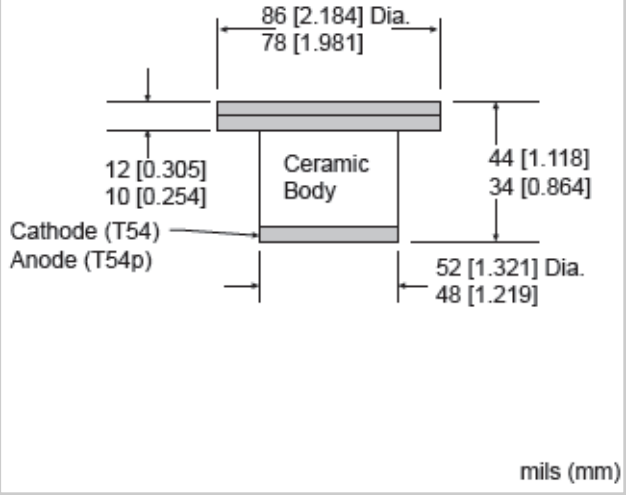


ET47

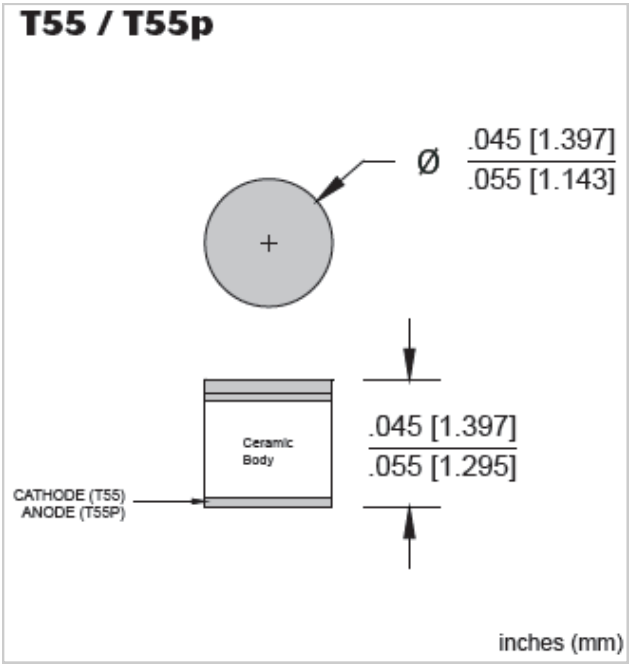


Outline Drawings

T54 / T54p



T55 / T55p



T89 / T89p