

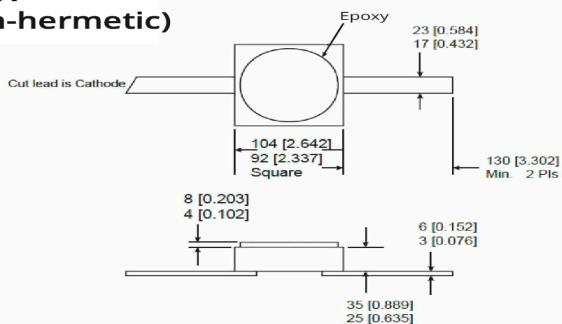
MBD1057-H20X Planar Tunnel Diode

Technical Characteristics

Product Features

- Rugged Germanium Planar Construction
- Excellent Temperature Stability
- No DC Bias Required
- Wide Video Bandwidth

H20X (non-hermetic)



Product Description

EclipseMDI MBD1057-H20X, is a zero-bias, rugged Planar Tunnel Diode constructed with Germanium Planar. This tunnel diode exhibits excellent temperature stability, wide video bandwidth. The MBD1057 is also available in hermetic (H20) ceramic packages.

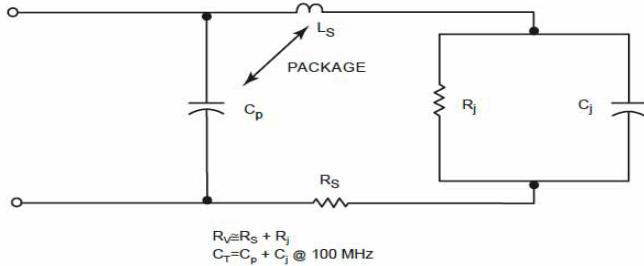
Maximum Ratings

Storage Temperature.....	-65° to +125°C
Operating Temperature.....	-65° to +110°C
Input Power Handling.....	+17dBm CW or 3 ERG spike
Soldering Temperature.....	+160° C

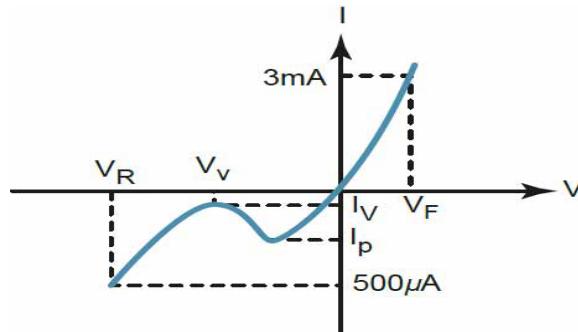
Specifications

Parameters	Conditions	MIN	Typical	MAX	UNITS
I_p		100		200	μA
C_j	$V_r=V_v$, $f=100MHz$.30	pF
$K[Y]$	$P_{in}=-20dBm$ $R_{load}=10K$, $f=10GHz$		1000		mV/mW
R_v			180		Ω Ohms
I_p/I_v		2.5			
V_r	$I_f=500\mu A$		420		mV
V_f	$I_f=3mA$			135	mV

Diode equivalent circuit



Back diode parameters



About EclipseMDI

ECLIPSE Microdevices is located in San Jose, California. ECLIPSE has been developing high performance analog semiconductors for use in wireless radio frequency (RF), microwave, and millimeter wave for commercial and industrial applications. ECLIPSE has formed a strategic alliances - with foundries that features leading state-of-the-art process technologies and with manufacturing facilities for high-volume production of innovative RFIC's.

Product Export Classification

ECCN: EAR 99 (unless otherwise specified)
HTS: 8542330000

