

MBD4037-H20 Planar Tunnel Diode

Technical Characteristics

Product Features

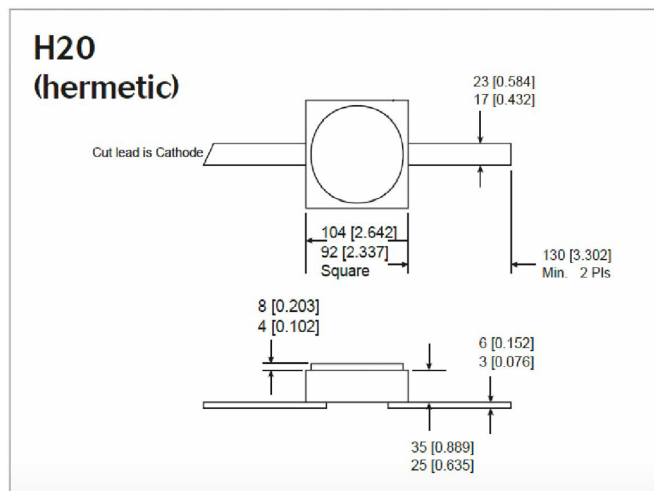
- Rugged Germanium Planar Construction
- Excellent Temperature Stability
- No DC Bias Required
- Wide Video Bandwidth

Product Description

EclipseMDI MBD4037-H20, is a zero-bias, rugged Planar Tunnel Diode constructed with Germanium Planar. This tunnel diode exhibits excellent temperature stability, wide video bandwidth. The MBD4037 is also available in a non-hermetic (H20X) ceramic packages.

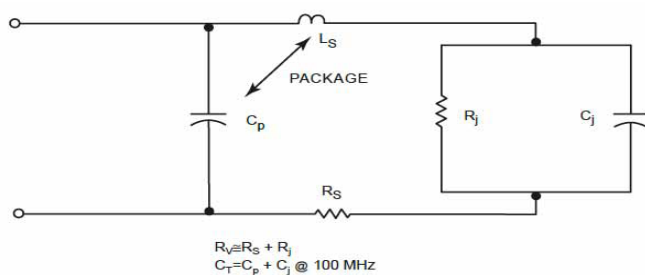
Maximum Ratings

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

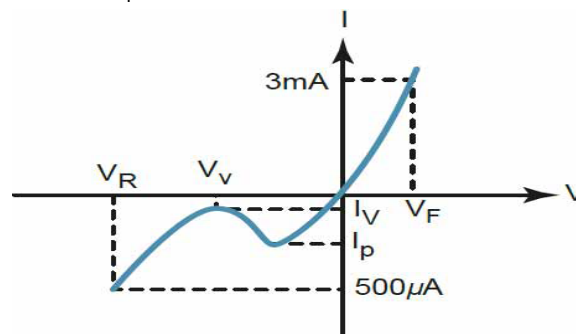


Parameters	Specifications				
	Conditions	MIN	Typical	MAX	UNITS
I_p		350		400	μA
C_j	$V_r = V_v$, $f = 100 \text{ MHz}$			.30	pF
$K[Y]$	$P_{in} = -20 \text{ dBm}$ $R_{Load} = 10K$, $f = 10 \text{ GHz}$		450		mV/mW
R_v			75		Ω Ohms
I_p/I_v		2.5			
V_r	$I_f = 500 \mu A$		400		mV
V_f	$I_f = 3 \text{ mA}$			125	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