

MBD2047-E28X Planar Tunnel Diode



Technical Characteristics

Product Features

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

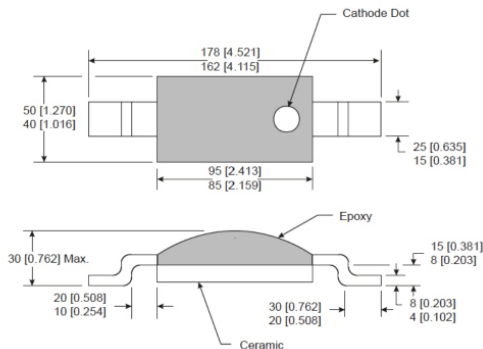
Product Description

EclipseMDI MBD2047-E28X, is a zero-bias, rugged Planar Tunnel Diode constructed with Germanium Planar. This tunnel diode exhibits excellent temperature stability, wide video bandwidth. The MBD2047 is also available in hermetic (E28) ceramic packages.

Maximum Ratings

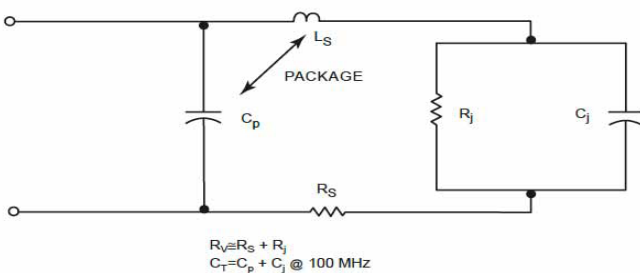
- Storage Temperature.....-65° to +125°C
- Operating Temperature.....-65° to +110°C
- Input Power Handling.....+17dBm CW or 3 ERG spike
- Soldering Temperature.....+160° C

E28X Non-Hermetic

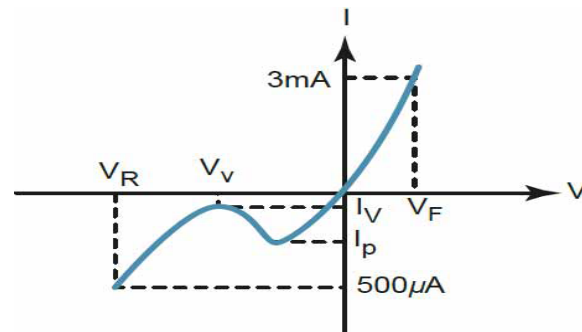


Parameters	Specifications				UNITS
	Conditions	MIN	Typical	MAX	
I_p		200		250	μA
C_j	$V_r = V_v$, $f = 100 \text{ MHz}$.30	pF
$K[Y]$	$P_{in} = -20 \text{ dBm}$ $R_{Load} = 10K$, $f = 10 \text{ GHz}$		900		mV/mW
R_v			160		Ω Ohms
I_p/I_v		2.5			
V_r	$I_f = 500 \mu A$		410		mV
V_f	$I_f = 3 \text{ mA}$			130	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 RFICs.

Product Export Classification

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