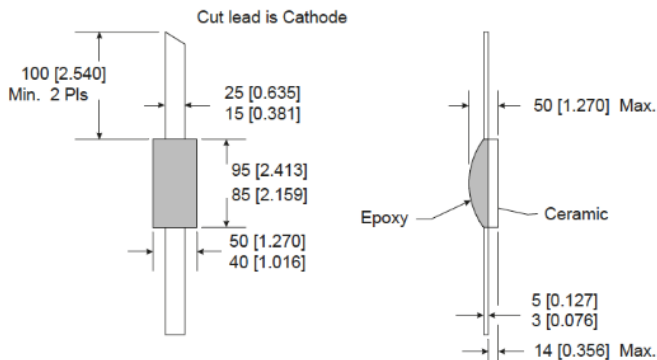


# MBD2047-E28 Planar Tunnel Diode



## E28 Non-Hermetic



## Technical Characteristics

### Product Features

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

### Product Description

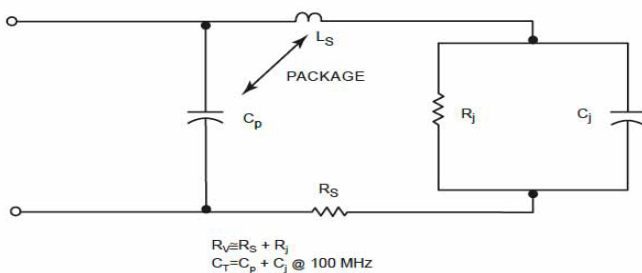
EclipseMDI MBD2047-E28, is a zero-bias, rugged Planar Tunnel Diode constructed with Germanium Planar. This tunnel diode exhibits excellent temperature stability, wide video bandwidth. The MBD2047 is also available in hermetic (E28X) ceramic packages.

### Maximum Ratings

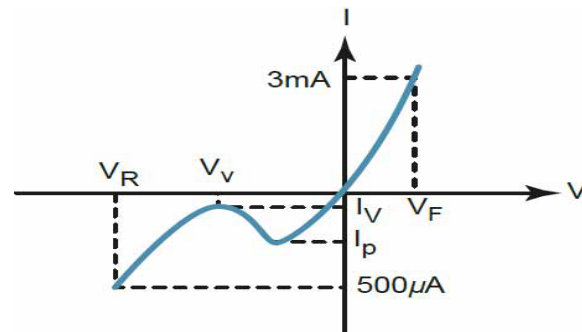
Storage Temperature.....-65° to +125°C  
 Operating Temperature.....-65° to +110°C  
 Input Power Handling.....+17dBm CW  
 or 3 ERG spike  
 Soldering Temperature.....+160° C

Parameters	Specifications				
	Conditions	MIN	Typical	MAX	UNITS
$I_p$		200		250	$\mu A$
$C_j$	$V_r = V_v$ , $f = 100 \text{ MHz}$			.30	pF
$K[Y]$	$P_{in} = -20 \text{ dBm}$ $R_{Load} = 10K$ , $f = 10 \text{ GHz}$		900		mV/mW
$R_v$			160		$\Omega$ 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 RFIC's.

## Product Export Classification

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