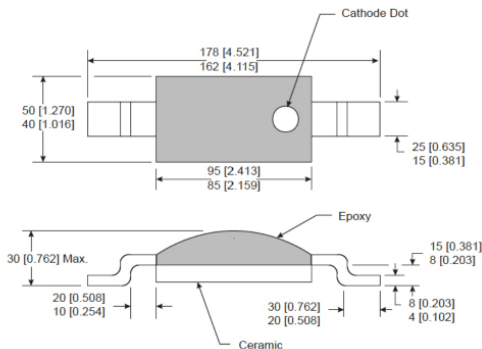


# MBD1057-E28X Planar Tunnel Diode



## E28X Non-Hermetic



### Technical Characteristics

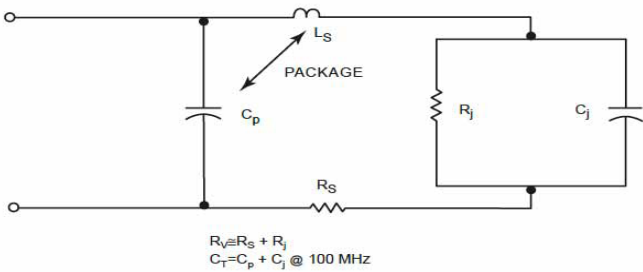
Product Features
Rugged Germanium Planar Construction
Excellent Temperature Stability
No DC Bias Required
Wide Video Bandwidth

Product Description
EclipseMDI MBD1057-E28X, 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 (E28) ceramic packages.

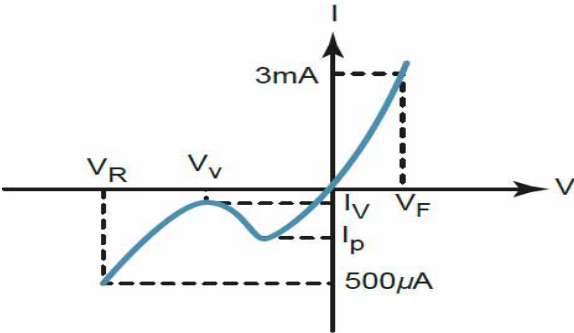
Maximum Ratings
Storage Temperature.....-65° to +125°C
Operating Temperature.....-65° to +110°C
Input Power Handling.....+17dBm CW or 3 ERG spike
Soldering Temperature.....+160° C

Parameters	Specifications				
	Conditions	MIN	Typical	MAX	UNITS
I <sub>p</sub>		100		200	μA
C <sub>j</sub>	V <sub>r</sub> =V <sub>v</sub> , f=100MHz			.30	pF
K[Y]	Pin=-20dBm R <sub>L</sub> (Load)=10K, f=10GHz		1000		mV/mW
R <sub>v</sub>			180		Ω Ohms
I <sub>p</sub> /I <sub>v</sub>		2.5			
V <sub>r</sub>	I <sub>f</sub> =500μA		420		mV
V <sub>f</sub>	I <sub>f</sub> =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 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