

Schottky Zero Bias Detector, SMA, Negative Video Out, +20 dBm max Pin, 10 MHz to 12.4 GHz



PE8012

Features

- Zero Bias Schottky Diode Detector
- 10 MHz to 12.4 GHz Frequency Range
- Extremely Flat Frequency Response
- Maximum Input Power +20 dBm, Peak Input Power +27 dBm
- Negative Video Output Polarity

Applications

- Electronic Warfare
- Test & Measurement
- System Monitoring
- AM Noise Measurements
- Military & Space
- Radar
- Pulsed RF Measurements in Ultra Broadband Applications
- Leveling Pulse Signal Sources
- Military Communications Systems

Description

The PE8012 is a zero bias Schottky detector that displays an extremely flat frequency response over a broad frequency range from 10 MHz to 12.4 GHz. The model features negative video output polarity and operates over a wide dynamic range of -30 dBm to +20 dBm input power. No external DC bias source is required. Performance includes 50 ohm matched inputs for excellent VSWR of 1.4:1 typical, high voltage sensitivity for very small signal detection of 500 mV/mW typical, and can withstand maximum input power levels up to +20 dBm CW. Operating temperature range is 0°C to +90°C. The compact and rugged cylindrical package supports an SMA male input connector and SMA female output connector and is ideal for use with precision test and measurement, instrumentation, and subsystem assemblies.

Electrical Specifications (@ +25°C)

Description	Minimum	Typical	Maximum	Units
Frequency Range	0.01		12.4	GHz
VSWR		1.4:1	1.6:1	
Voltage Sensitivity	300	500	600	mV/mW
Flatness		±0.3	±0.4	dB
Input Power			+20	dBm CW
Video Capacitance	420	470	500	pF
Voltage Sensitivity Over Temperature	2.5	3	3.5	dB
Dynamic Range	-30		+20	dBm
Operating Temperature Range	-54		+100	deg C
Output Polarity		Negative		

Electrical Specification Notes:

Mechanical Specifications

Size

Length	1.21 in	[30.73 mm]
Width	0.31 in	[7.87 mm]
Height	0 in	[0 mm]
Weight	0.0235 lbs	[10.66 g]
Connector 1	SMA Male	

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Connector 2

SMA Female

Configuration

Mechanical Specification Notes:

Environmental Specifications

Temperature

Operating Temperature

-54 to +100 deg C

Storage Temperature

-65 to +100 deg C

Environmental Specification Notes:

Compliance Certifications

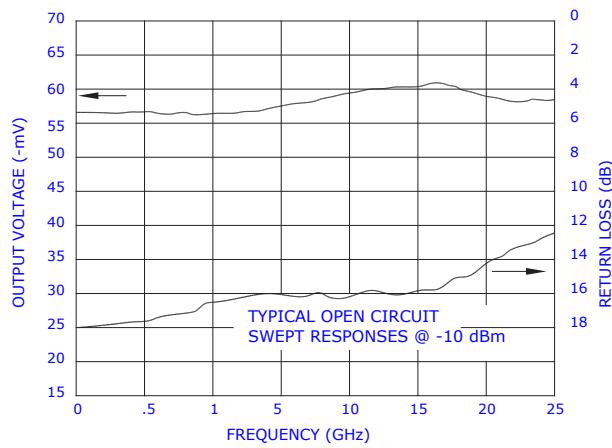
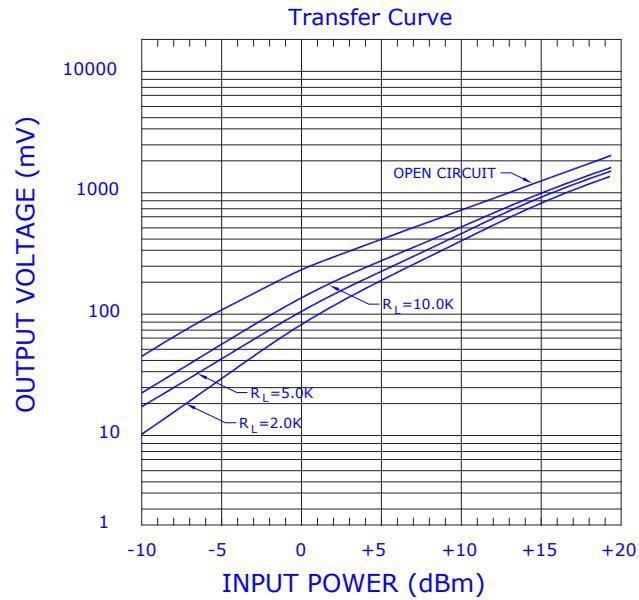
Plotted and Other Data

Notes:

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Schottky Zero Bias Detector, SMA, Negative Video Out, +20 dBm max Pin, 10 MHz to 12.4 GHz from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99.4% availability and are part of the broadest selection in the industry.

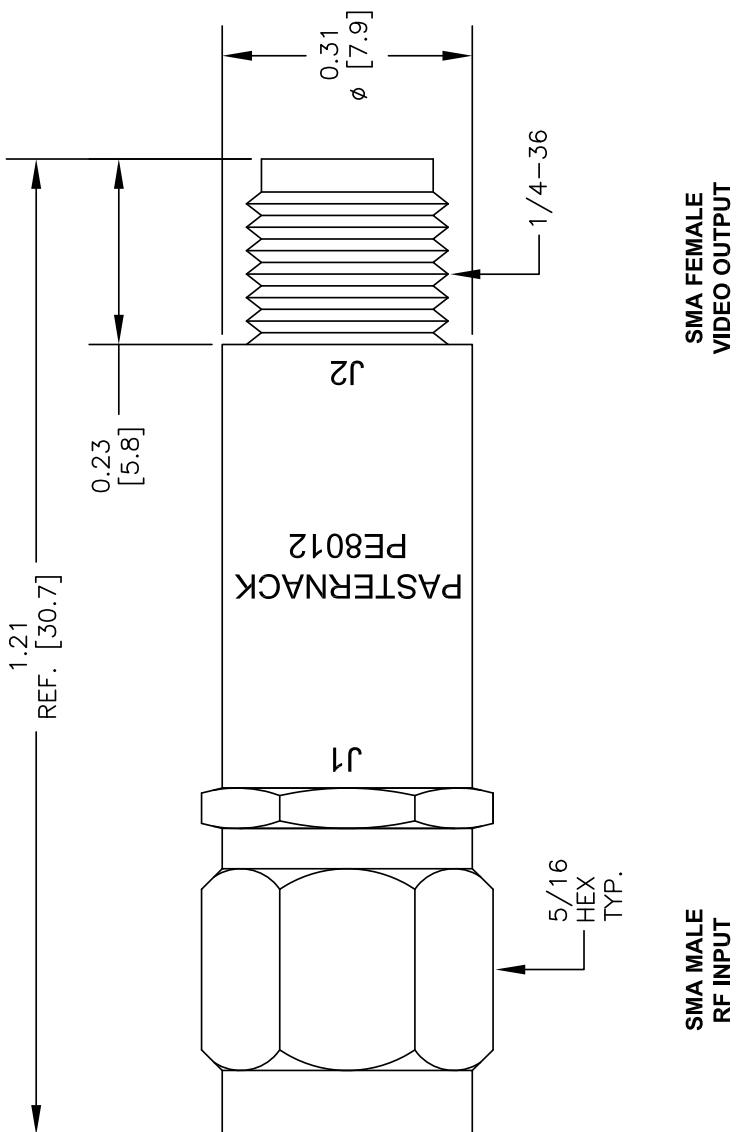
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [Schottky Zero Bias Detector, SMA, Negative Video Out, +20 dBm max Pin, 10 MHz to 12.4 GHz PE8012](#)

URL: <https://www.pasternack.com/50-ohm-sma-zero-biased-detector-negative-10-mhz-12400-mhz-pe8012-p.aspx>

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PE8012 CAD Drawing

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NOTES:
1. UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE NOMINAL.
2. ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE AT ANY TIME.
3. DIMENSIONS ARE IN INCHES [mm].

DWG TITLE
PE8012

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