

Biased Detector, SMA Female and 2.92mm Male,
Negative Video Out, 18 GHz to 26 GHz

PE8009



Features

- Biased Schottky Diode Detector
- TSS: -52 dBm
- 18 GHz to 26 GHz Frequency Range
- Extremely Flat Frequency Response
- Maximum Input Power +23 dBm
- Negative Video Output Polarity
- Bias: 100uA typical
- External DC Bias Circuit is Required (reference application circuit)
- High Voltage Sensitivity

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 PE8009 is a biased Schottky detector that displays an extremely flat frequency response over a broad frequency range from 18 GHz to 26 GHz. An External DC Bias Circuit is required (reference application circuit). Biasing offers optimum rectification performance of the Schottky Junction. The model features negative video output polarity and operates to +23dBm input power with a TSS of -52dBm. Additional features include 50 ohm matched inputs, and high voltage sensitivity for very small signal detection of 1500 mV/mW. Operating temperature range is -55°C to +125°C. The compact and rugged cylindrical package supports an SMA female input connector and 2.92mm male 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	18		26	GHz
Voltage Sensitivity		1,500		mV/mW
Flatness		±1		
Input Power			+23	dBm CW
Video Capacitance	5			pF
Tangential Signal Sensitivity (TSS)		-52		
Operating Temperature Range	-55		+125	deg C
Output Polarity		Negative		

Electrical Specification Notes:

@ +25 deg C, 100uA Bias, and -20 dBm Pin

Voltage Sensitivity is that of an open circuit

TSS is measured with a 2 MHz video bandwidth and a 2 dB NF Amplifier

Mechanical Specifications

Size

Length	1.36 in	[34.54 mm]
Width	0.327 in	[8.31 mm]
Height	0 in	[0 mm]

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Weight	0.018 lbs [8.16 g]
Connector 1	SMA Female
Connector 2	2.92mm Male

Configuration

Mechanical Specification Notes:

Environmental Specifications

Temperature

Operating Temperature	-55 to +125 deg C
Storage Temperature	-65 to +125 deg C

Environmental Specification Notes:

Compliance Certifications

Plotted and Other Data

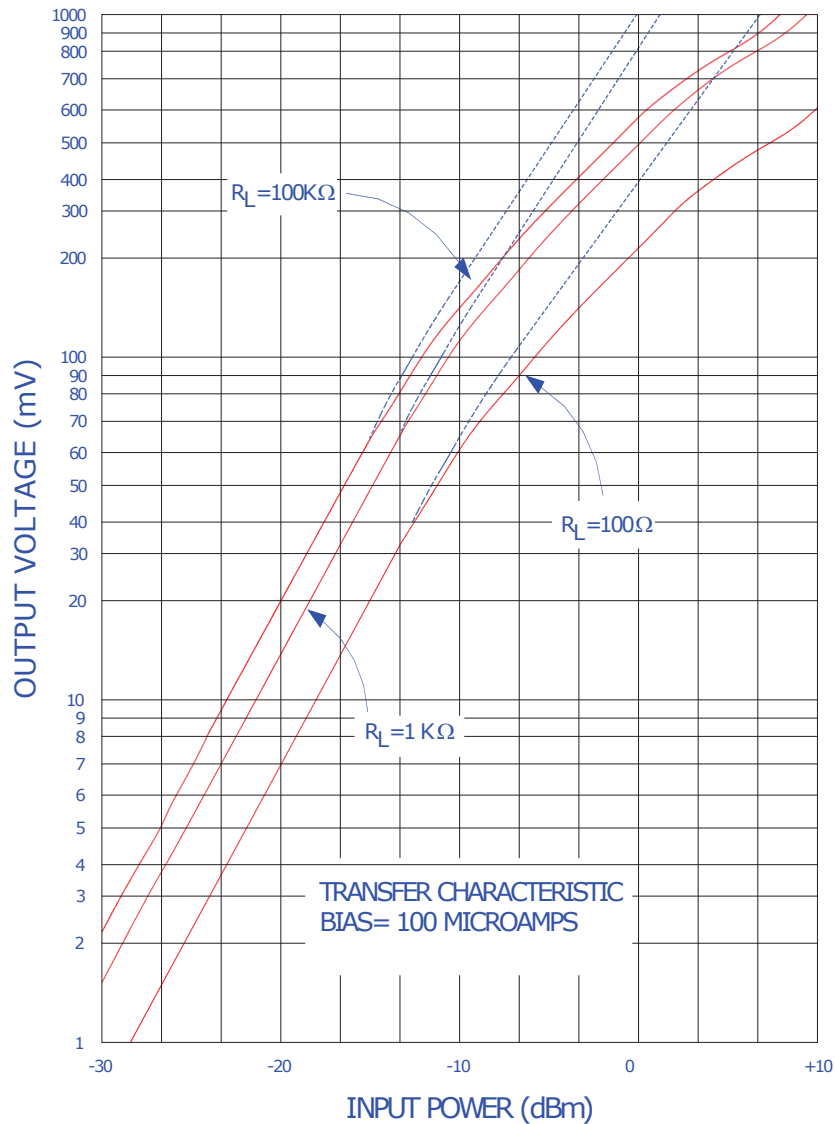
Notes:

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PE8009



TRANSFER CHARACTERISTIC

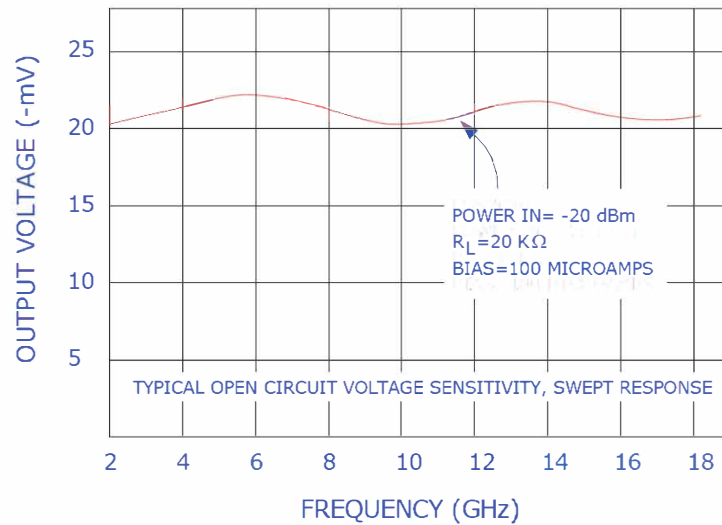


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Voltage Output Vs. Frequency



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Biased Detector, SMA Female and 2.92mm Male, Negative Video Out, 18 GHz to 26 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: [Biased Detector, SMA Female and 2.92mm Male, Negative Video Out, 18 GHz to 26 GHz PE8009](https://www.pasternack.com/biased-detector-sma-negative-18-26-ghz-pe8009-p.aspx)

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PE8009 CAD Drawing
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