Schottky Diode Zero Bias Detector, 500 MHz to 18 GHz, 2.92mm, Positive Video Out, +20 dBm Max Pin, MIL-STD-202, Radial

PE80T6030

Features

- Zero bias Schottky diode detector
- Broadband frequency range: 0.5 GHz to 18.0 GHz
- Positive video output polarity
- Sensitivity: 500 ± 50 mV/mW typical
- Frequency flatness: ±3.5 dB max
- Low VSWR: 2.0:1
- Maximum input power: +20 dBm
- 2.92mm male RF input and 2.92mm female video output connectors
- Operating temperature range: -54 °C to +100 °C
- Environmentally tested to MIL-STD-202 (humidity, shock, vibration, altitude, temperature cycle)

Applications

- RF power and level monitoring
- Broadband test and measurement equipment
- Transmitter monitoring and leveling
- Radar and surveillance systems
- Electronic warfare (EW) and ECM receivers
- detector front-ends for receiver chains
- General-purpose RF measurement applications
- Military and aerospace systems

Description

This coaxial packaged Zero Bias Schottky Diode Detector operates over a broadband frequency range of 0.5 GHz to 18.0 GHz and is designed for accurate RF signal detection in CW and broadband measurement applications. The zero-bias Schottky design provides reliable detection without the need for external biasing, making it ideal for compact and simplified system designs. The detector delivers a stable positive polarity video output with a typical sensitivity of 500 ± 50 mV/mW, dependent on input power and frequency. With good frequency flatness and low VSWR, this detector supports consistent performance across a wide frequency band. The rugged 2.92mm-connectorized package is environmentally qualified to MIL-STD-202, ensuring dependable operation in harsh military, aerospace, and laboratory environments. Maximum input power handling is +20 dBm.

Electrical Specifications (@ +25°C)

Description	Minimum	Typical	Maximum	Units
Frequency Range	0.5		18	GHz
VSWR		1.5:1	2:1	
Voltage Sensitivity		500		mV/mW
Flatness			±3.5	dB
Input Power			+20	dBm CW
Video Capacitance		30		pF
Operating Temperature Range	-54		+100	deg C
Output Polarity		Positive		

Electrical Specification Notes:

Mechanical Specifications

Size

Length	1.3 in	[33.02 mm]
Width	0.31 in	[7.87 mm]
Height	0.31 in	[7.87 mm]
Weight	0.03 lbs	[13.61 g]
Connector 1	2.92mm Male	

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Connector 2	2.92mm Female

Configuration

Mechanical Specification Notes:

Environmental Specifications

Temperature

Operating Temperature	-54 to +100 deg C
Storage Temperature	-65 to +125 deg C
Temperature Cycling	MIL-STD-202, Method 107D Cond. A
Humidity	MIL-STD-202, Method 103B Cond. B
Shock	MIL-STD-202, Method 213B Cond. B
Vibration	MIL-STD-202, Method 204D Cond. B
Altitude	MIL-STD-202, Method 105C Cond. B

Environmental Specification Notes:

Compliance Certifications

Plotted and Other Data

Notes:

Schottky Diode Zero Bias Detector, 500 MHz to 18 GHz, 2.92mm, Positive Video Out, +20 dBm Max Pin, MIL-STD-202, Radial 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 Diode Zero Bias Detector, 500 MHz to 18 GHz, 2.92mm, Positive Video Out, +20 dBm Max Pin, MIL-STD-202, Radial PE80T6030

URL: https://www.pasternack.com/schottky-diode-zero-bias-detector-2.92mm-positive-500-mhz-18-ghz-pe80t6030-p.aspx

PE80T6030 CAD Drawing

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