

## Zero Bias Detector With SMA Male to BNC Female and Negative Video Out Operating From 10 MHz to 2 GHz

The SMD0102 is a zero bias Schottky detector that displays an extremely flat frequency response over a broad frequency range from 10 MHz to 2 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 1.18:1 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 BNC Female output connector and is ideal for use with precision test and measurement, instrumentation, and subsystem assemblies.

### Electrical Specifications

Description	Min	Typ	Max	Unit
Frequency Range	10 MHz		2 GHz	
VSWR		1.18:1	1.2:1	
Voltage Sensitivity		500		mV/mW
Flatness		±0.3	±0.4	dB
Input Power			+20	dBm
Video Capacitance		470		pF
Dynamic Range	-30		+20	dBm

### Mechanical Specifications

#### Temperature

Operating Range -54 to +100 deg C

Storage Range -65 to +100 deg C

#### Size

Length 1.95 in [49.53 mm]

Weight 0.03652 lbs [16.57 g]

**Compliance Certifications** (see [product page](#) for current document)

### Plotted and Other Data

Notes:

- Values at +25 °C, sea level
- ESD Sensitive Material, Transport material in Approved ESD bags. Handle only in approved ESD Workstation.



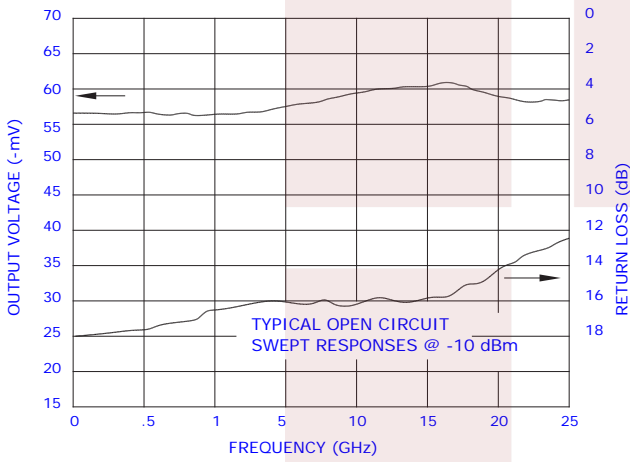
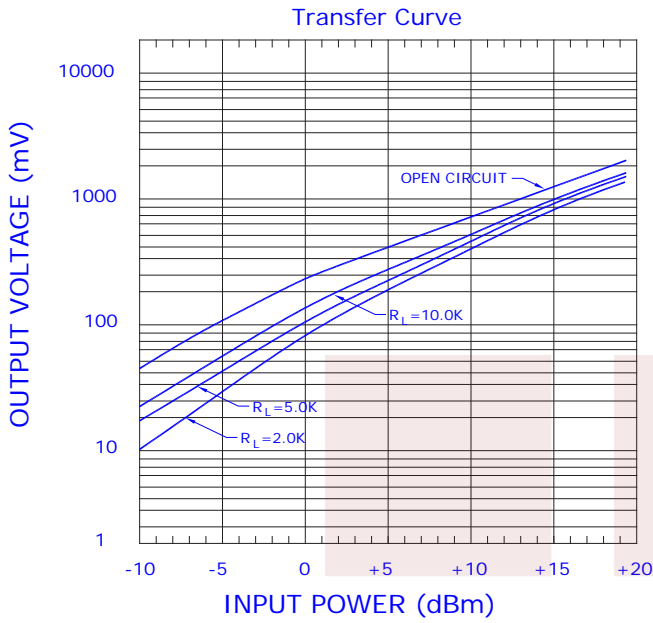
### Features:

- Zero Bias Schottky Diode Detector
- 10 MHz to 2 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

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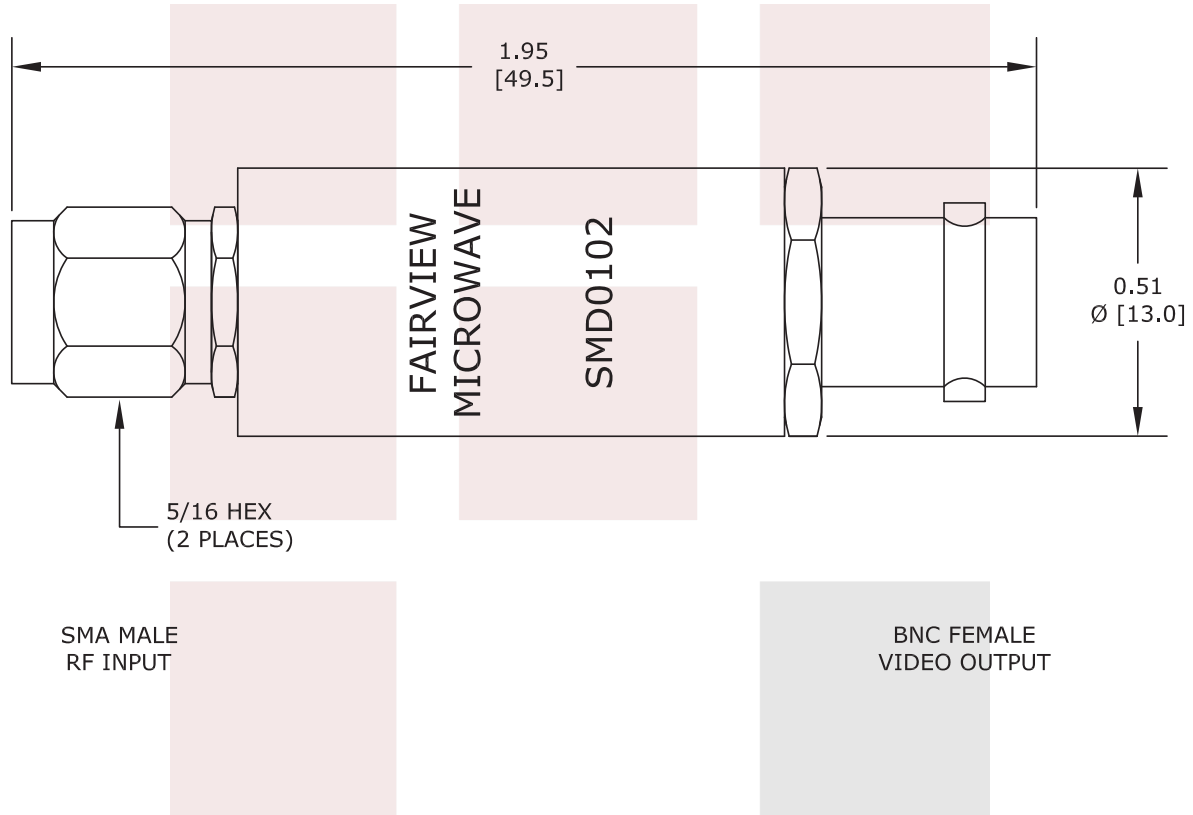
Zero Bias Detector With SMA Male to BNC Female and Negative Video Out Operating From 10 MHz to 2 GHz from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [Zero Bias Detector With SMA Male to BNC Female and Negative Video Out Operating From 10 MHz to 2 GHz SMD0102](#)

URL: <https://www.fairviewmicrowave.com/zero-biased-detector-sma-male-negative-10-mhz-2-ghz-smd0102-p.aspx>

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STANDARD TOLERANCES	
.X	±0.2
.XX	±0.1
.XXX	±0.05

\*STANDARD TOLERANCES APPLY ONLY TO DIMENSIONS IN INCHES

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TITLE Zero Bias Detector With SMA Male to BNC Female and Negative Video Out Operating From 10 MHz to 2 GHz		DWG NO SMD0102		CAGE CODE 3FKR5	
CAD FILE	091616	SHEET	SCALE	N/A	SIZE A 2233