

**Zero Bias Detector With SMA Male to SMA Female and Negative Video Out Operating From 10 MHz to 18.5 GHz**

The SMD0118 is a zero bias Schottky detector that displays an extremely flat frequency response over a broad frequency range from 10 MHz to 18.5 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 1.6:1 typical, high voltage sensitivity for very small signal detection of 400 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**

Description	Min	Typ	Max	Unit
Frequency Range	10 MHz		18.5 GHz	
VSWR		1.6:1	1.7:1	
Voltage Sensitivity		400		mV/mW
Flatness		±0.5	±0.6	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 1.21 in [30.73 mm]  
 Weight 0.02205 lbs [10 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:**

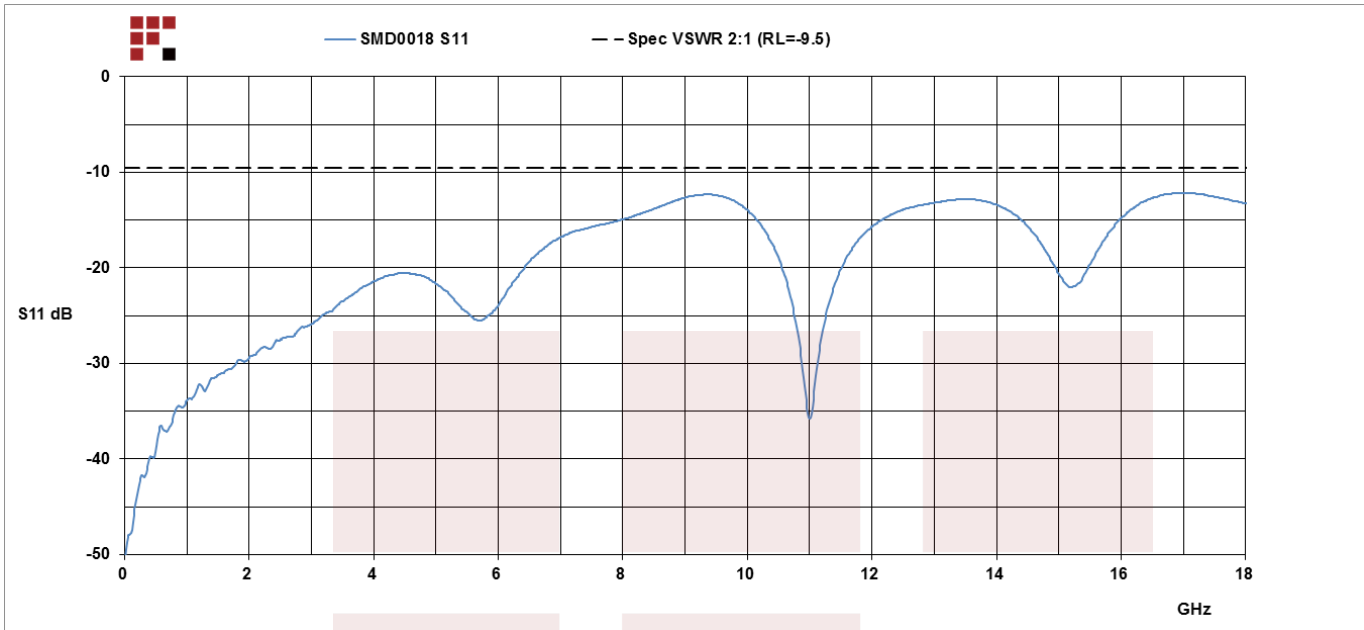
- Zero Bias Schottky Diode Detector
- 10 MHz to 18.5 GHz Frequency Range
- Extremely Flat Frequency Response
- Maximum Input Power +20 dBm, Peak Input Power +27 dBm
- Negative Video Output Polarity

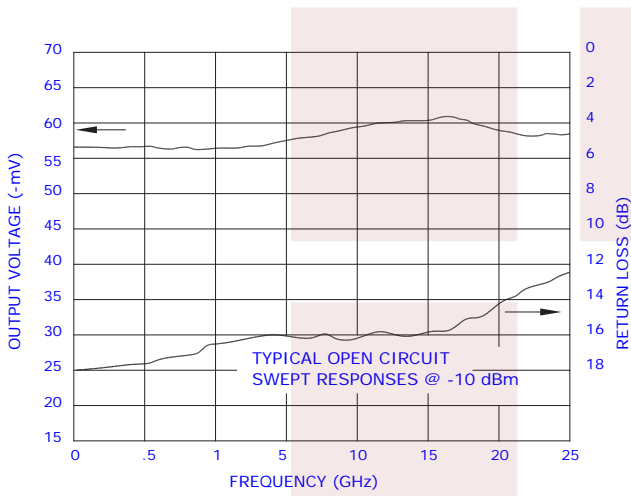
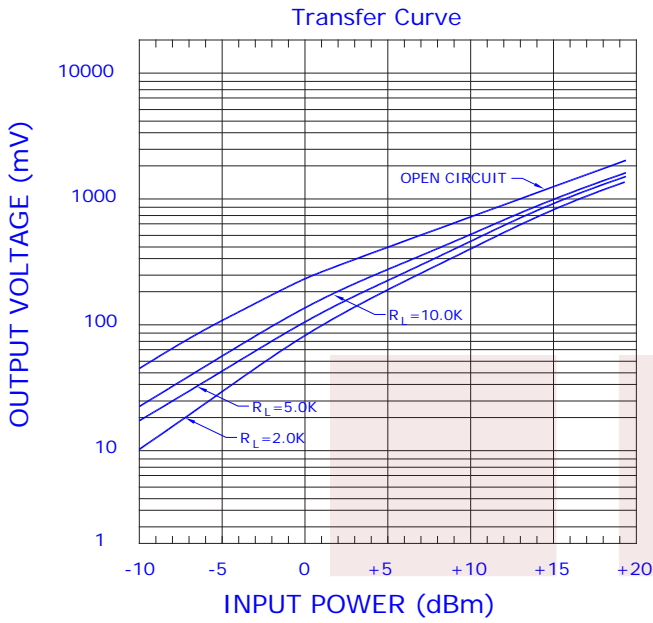
**Applications:**

- 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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**Typical Performance Data**



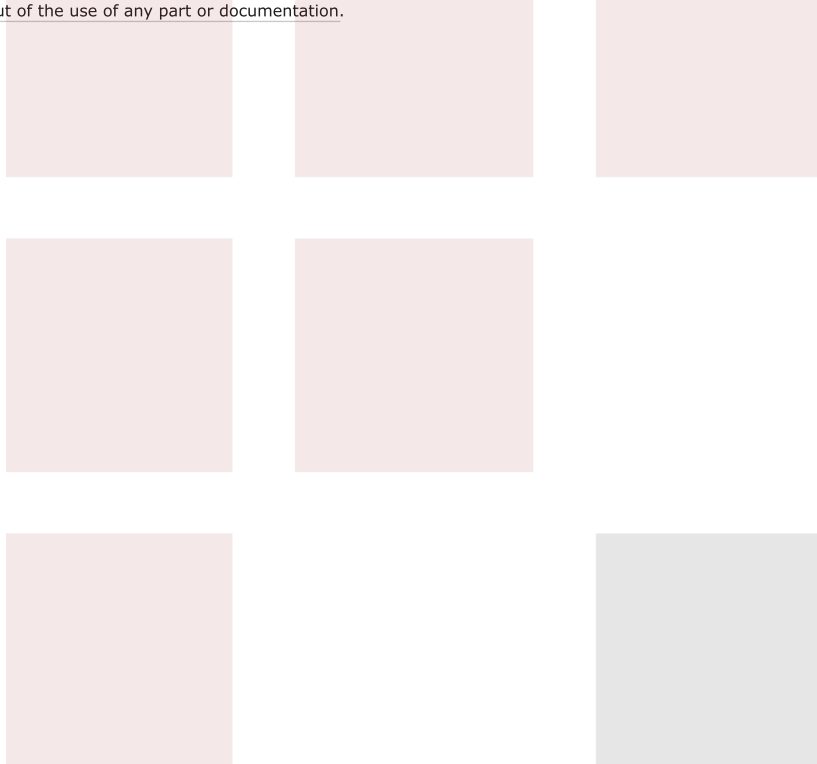


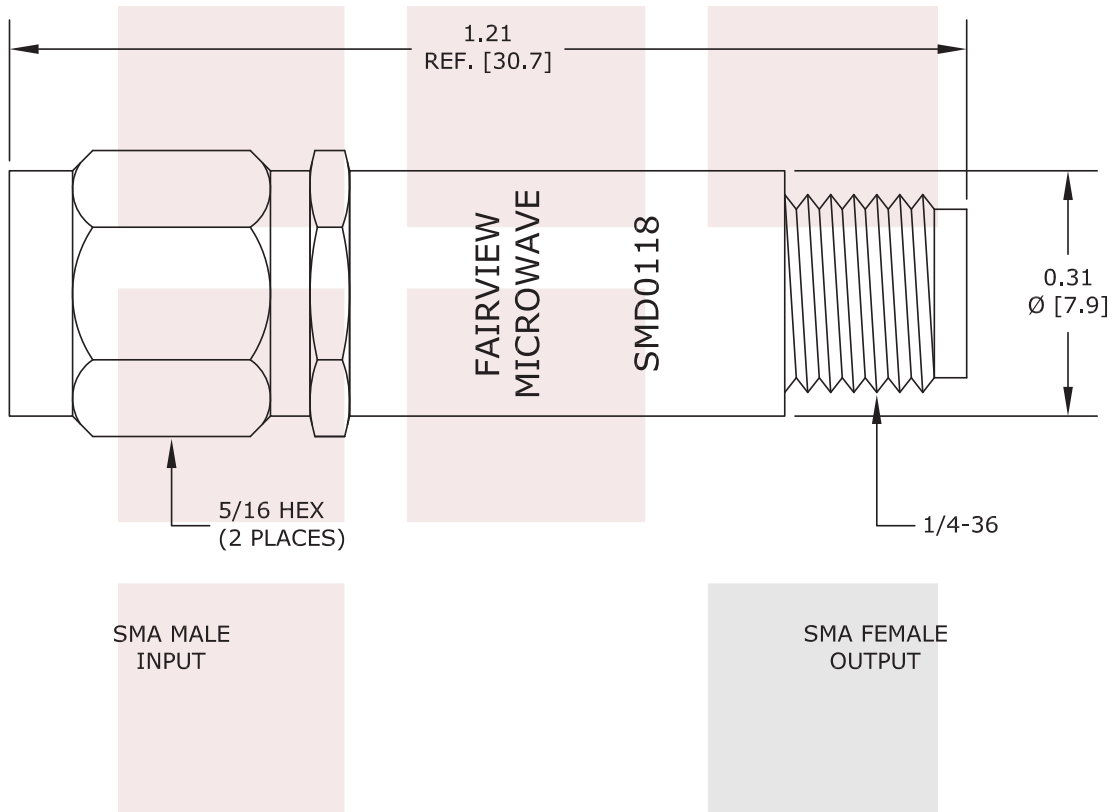
Zero Bias Detector With SMA Male to SMA Female and Negative Video Out Operating From 10 MHz to 18.5 GHz from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [Zero Bias Detector With SMA Male to SMA Female and Negative Video Out Operating From 10 MHz to 18.5 GHz SMD0118](#)

URL: <https://www.fairviewmicrowave.com/zero-biased-detector-sma-male-negative-100-mhz-18-ghz-smd0118-p.aspx>

The information contained in this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part, in order to implement improvements. Fairview Microwave reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. Fairview Microwave does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and Fairview Microwave does not assume any liability arising out of the use of any part or documentation.





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 SMA Female and Negative Video Out Operating From 10 MHz to 18.5 GHz	DWG NO SMD0118	CAGE CODE 3FKR5			
CAD FILE 091616	SHEET	SCALE N/A	SIZE A	2233	