

Zero Bias Detector With N Male to SMA Female and Negative Video Out Operating From 2 GHz to 4 GHz

The SMD0204N is a zero bias Schottky detector that displays an extremely flat frequency response over a broad frequency range from 2 GHz to 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 1.35:1 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 -54°C to +100°C. The compact and rugged cylindrical package supports an N 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	2 GHz		4 GHz	
VSWR		1.35:1	1.45:1	
Voltage Sensitivity		500		mV/mW
Flatness		±0.2	±0.25	dB
Input Power			+20	dBm
Video Capacitance		20		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	1.67 in [42.42 mm]
Weight	0.01 lbs [4.54 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:

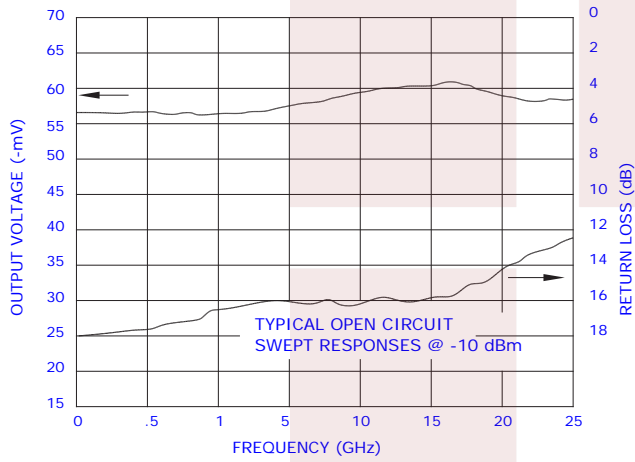
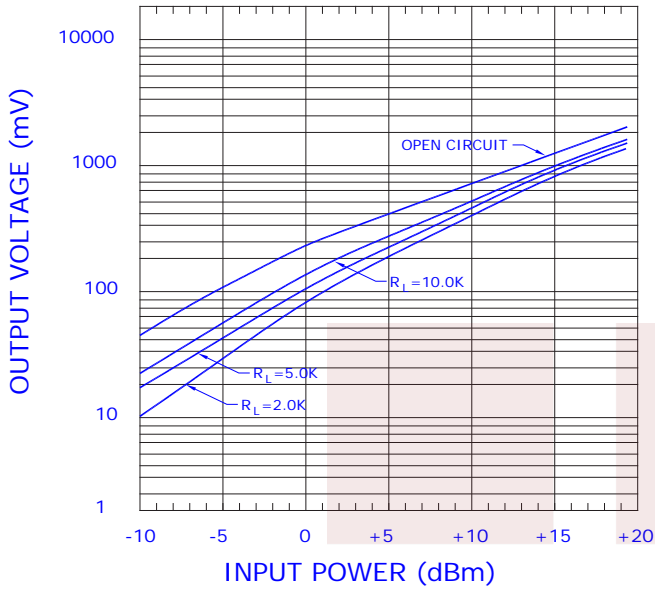
- Zero Bias Schottky Diode Detector
- 2 GHz to 4 GHz Frequency Range
- Extremely Flat Frequency Response
- Maximum Input Power +20 dBm, Peak Input Power +27 dBm
- Negative Video Output Polarity

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

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Transfer Curve



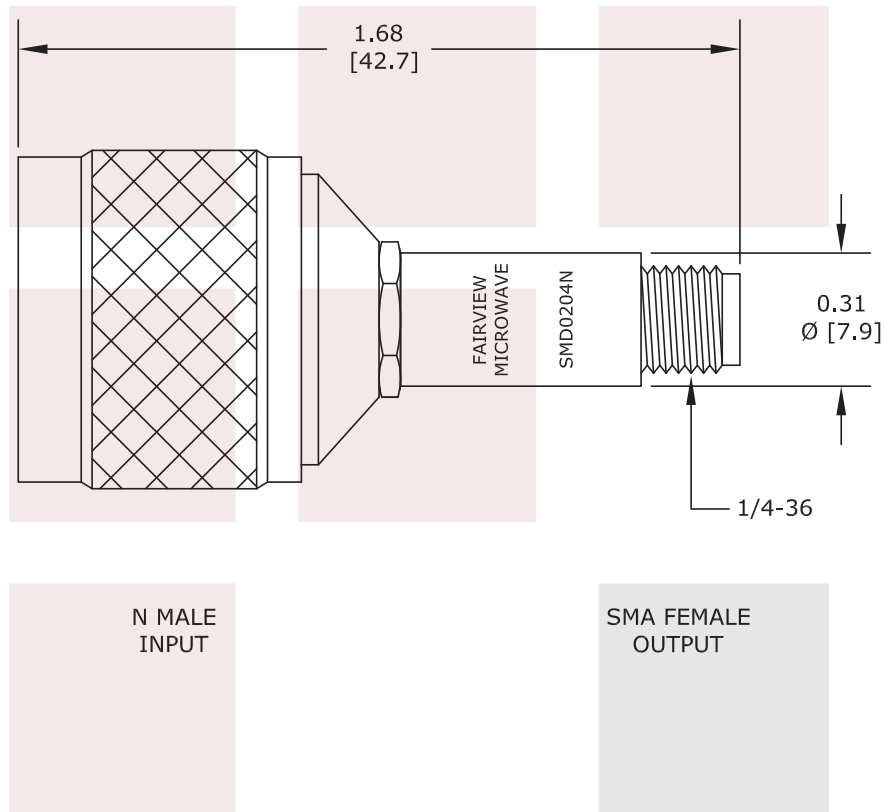
Zero Bias Detector With N Male to SMA Female and Negative Video Out Operating From 2 GHz to 4 GHz from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [Zero Bias Detector With N Male to SMA Female and Negative Video Out Operating From 2 GHz to 4 GHz SMD0204N](#)

URL: <https://www.fairviewmicrowave.com/zero-biased-detector-n-male-negative-2-4-ghz-smd0204n-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

FAIRVIEW MICROWAVE INC. ALLEN, TX 75013 WWW.FAIRVIEWMICROWAVE.COM		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].			
TITLE Zero Bias Detector With N Male to SMA Female and Negative Video Out Operating From 2 GHz to 4 GHz		DWG NO SMD0204N		CAGE CODE 3FKR5	
CAD FILE	091616	SHEET	SCALE	N/A	SIZE A 2233