

Biased Detector With SMA Male to SMA Female and Positive Video Out Operating From 2 GHz to 4 GHz

The FMMT1003-P is a biased Schottky detector that displays an extremely flat frequency response over a broad frequency range from 2 GHz to 4 GHz. The model features Positive video output polarity, with no external DC bias source is required. Additional features include 50 ohm matched inputs, high voltage sensitivity for very small signal detection of 2000 mV/mW typical, and can withstand maximum input power levels up to +23 dBm CW. Operating temperature range is -55°C to +125°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	2 GHz		4 GHz	
Flatness		±0.5		dB
Input Power			+23	dBm
Operating Temperature Range	-55		+125	deg C

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



Features:

- Biased Schottky Diode Detector
- 2 GHz to 4 GHz Frequency Range
- Extremely Flat Frequency Response
- Maximum Input Power +23 dBm
- Positive 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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Mechanical Specifications

Size	
Length	1.26 in [32 mm]
Width	0.317 in [8.05 mm]
Weight	0.0205 lbs [9.3 g]

Environmental Specifications

Temperature	
Operating Range	-55 to +125 deg C
Storage Range	-65 to +150 deg C

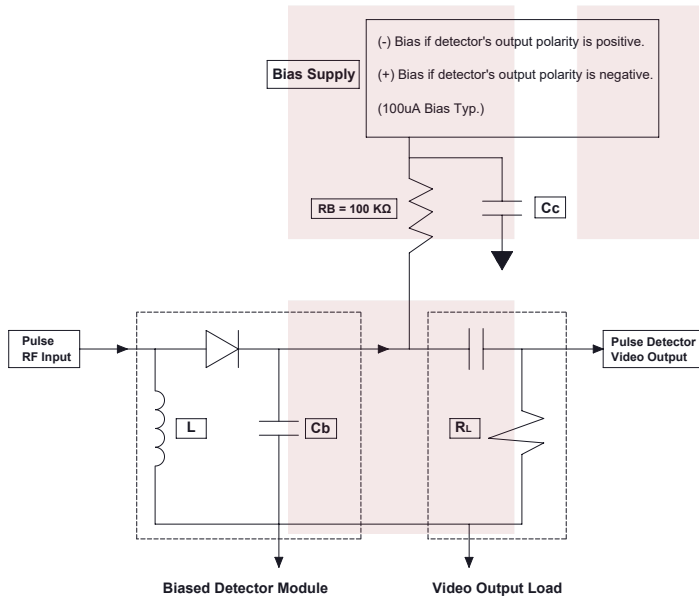
Compliance Certifications (see [product page](#) for current document)

Plotted and Other Data

Notes:

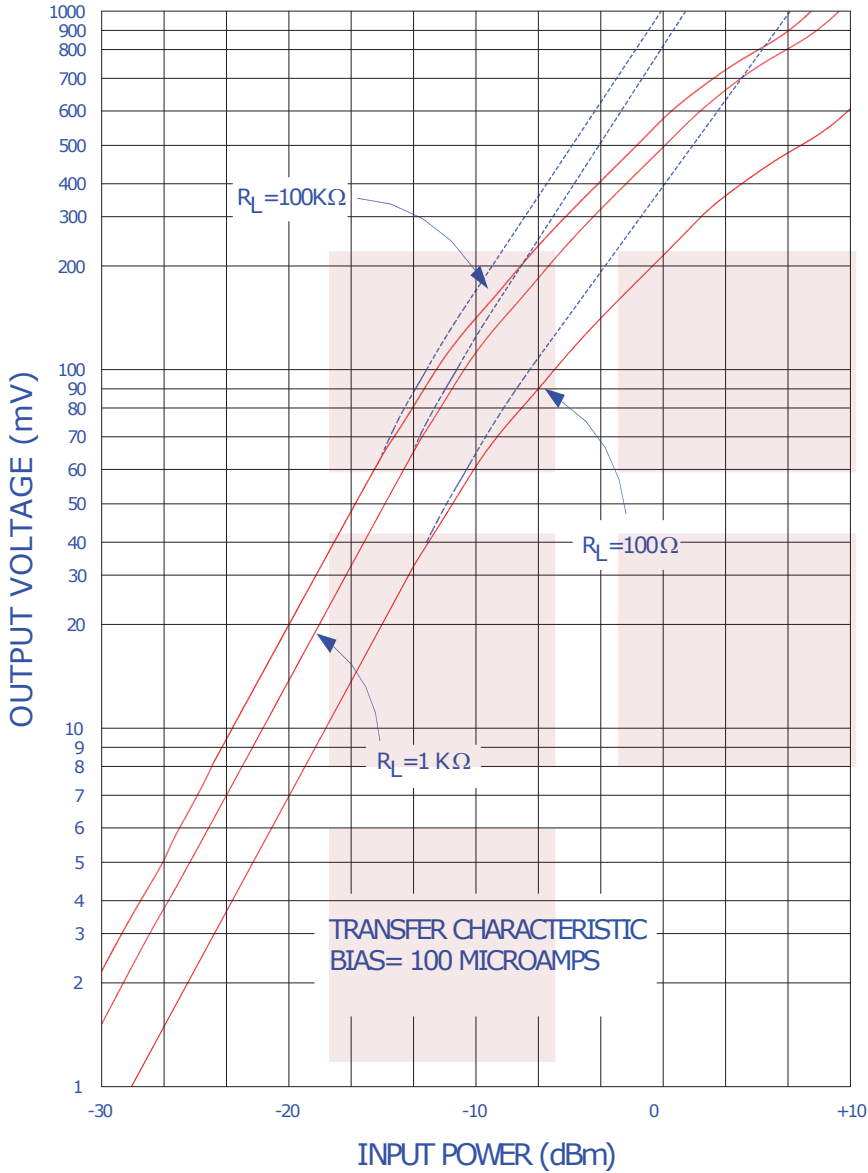
Functional Block Diagram

Biased Schottky Detector Application Circuit

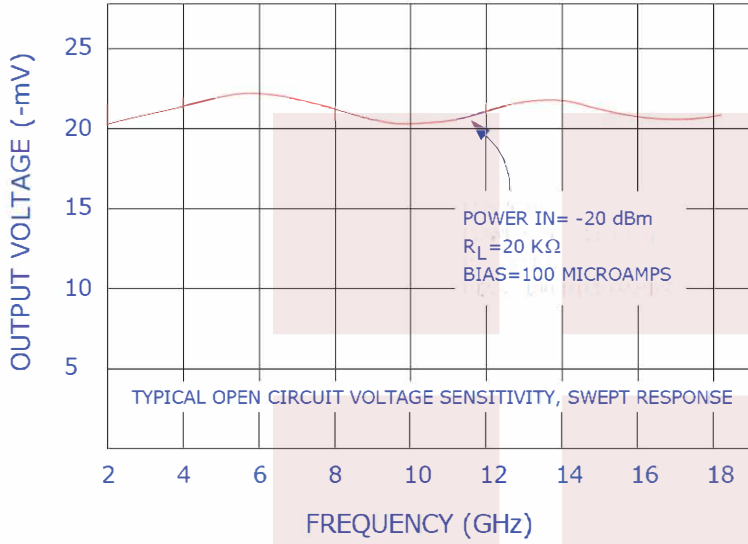


Typical Performance Data

TRANSFER CHARACTERISTIC



Voltage Output Vs. Frequency

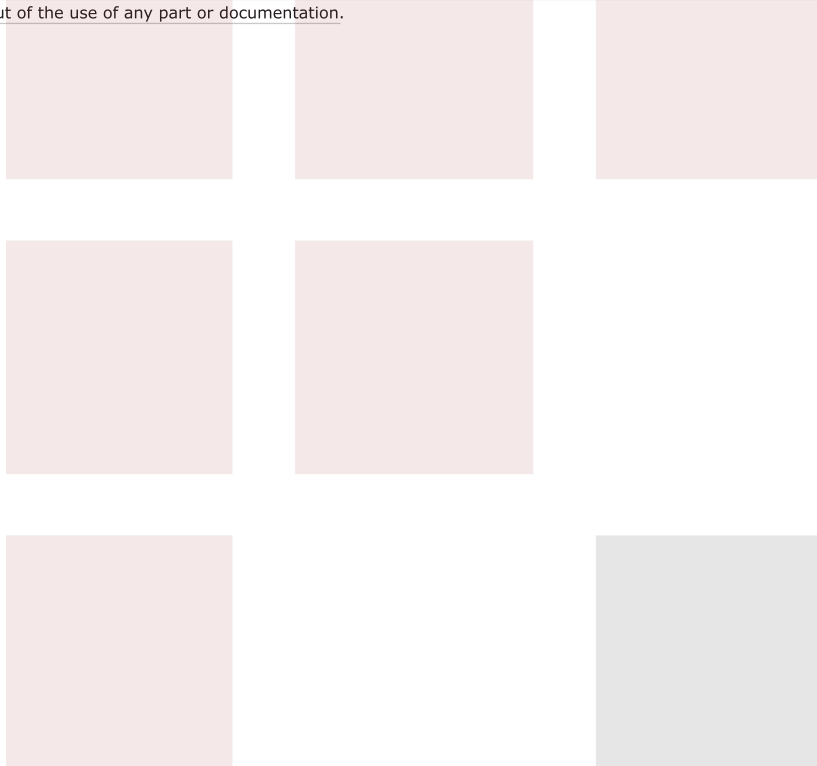


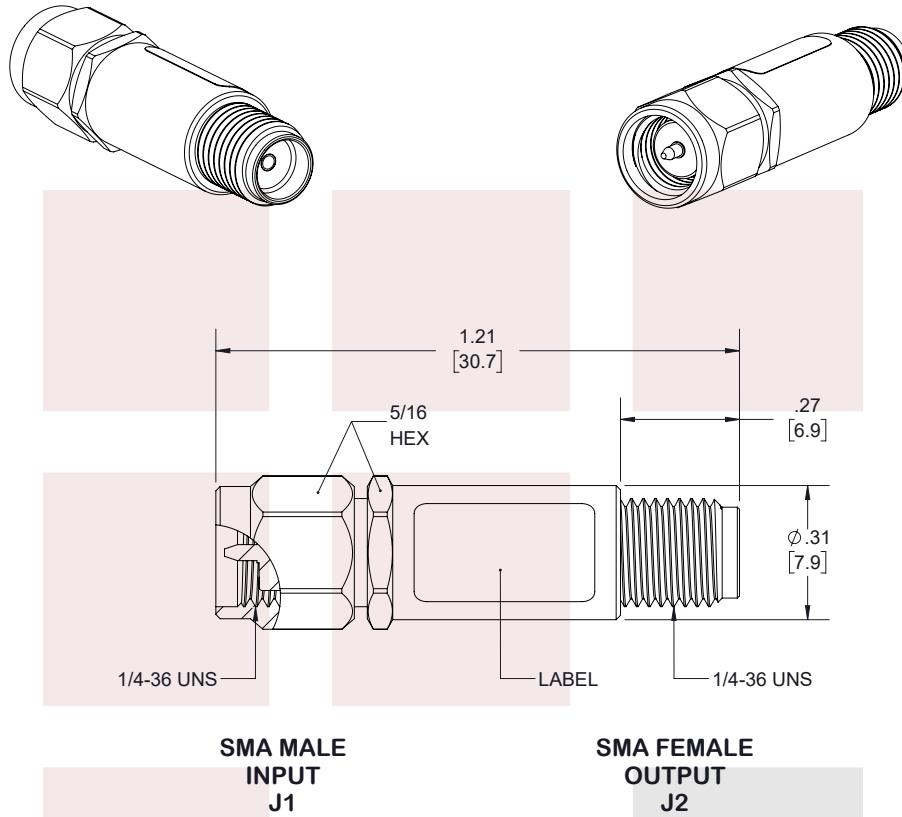
Biased Detector With SMA Male to SMA Female and Positive Video Out Operating From 2 GHz to 4 GHz from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave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

For additional information on this product, please click the following link: [Biased Detector With SMA Male to SMA Female and Positive Video Out Operating From 2 GHz to 4 GHz FMMT1003-P](#)

URL: <https://www.fairviewmicrowave.com/biased-detector-sma-male-2-4-ghz-fmmt1003-p-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.





LABEL:

FAIRVIEW MICROWAVE
 FMMT1003-P
 DATE CODE: XXXX

STANDARD TOLERANCES

.X ±0.2
 .XX ±0.01
 .XXX ±0.005

*STANDARD TOLERANCES APPLY ONLY TO DIMENSIONS IN INCHES

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TITLE Biased Detector With SMA Male to SMA Female and Positive Video Out Operating From 2 GHz to 4 GHz		DWG NO FMMT1003-P		CAGE CODE 3FKR5	
CAD FILE	110117	SHEET	1 OF 1	SCALE	N/A
				SIZE	A
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