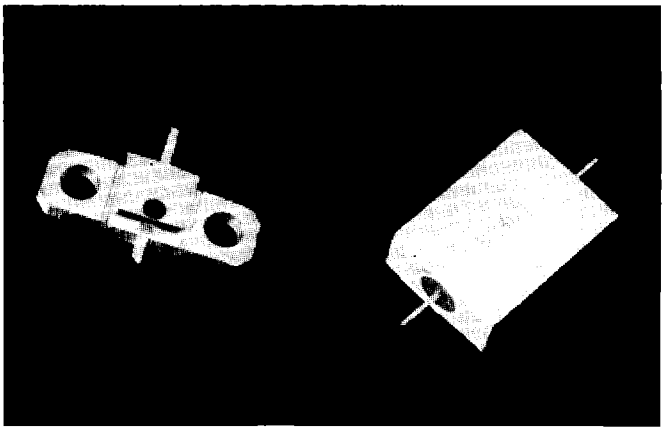
BROADBAND TUNNEL DIODE DETECTORS

metelics CORPORATION

The MTD Series of Broadband Tunnel Detectors offers high sensitivity and low VSWR. These detectors are available in several standard packages. Special packages and opposite polarities are available upon request. These are designed and manufactured to meet high quality and reliability standards.

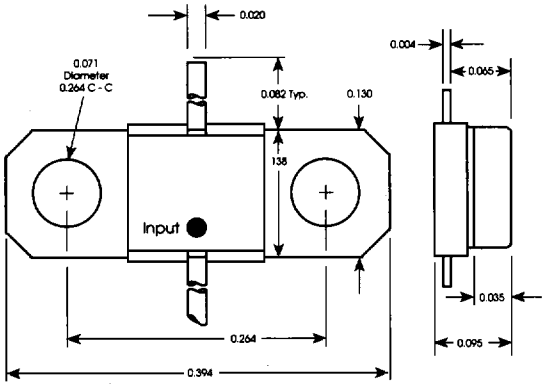


MTD TUNNEL DETECTOR DATA

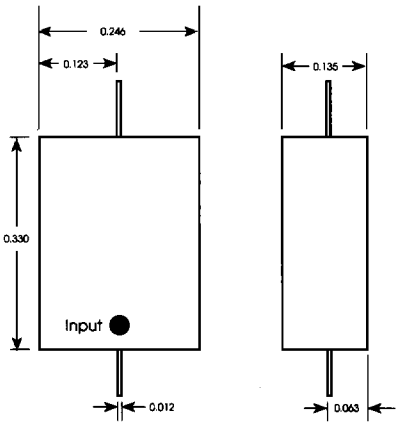
Model Number	Frequency Range GHz	Minimum Sensitivity mV/mW	Maximum VSWR	Flatness dB	Typical Rv Ω	Typ. Output Capacitance Pf
MTD-1002	0.1-2.0	.700	2.0:1	±0.5	200	100
MTD-0208	2.0-8.0	700	2.0:1	±0.8	130	20
MTD-0818	8.0-18.0	400	2.3:1	±1.2	100	10
MTD-0218	2.0-18.0	400	2.5:1	±1.5	100	10

Notes:

- Other frequency bands and outputs are available upon request.
- Output is negative
- Maximum P_{in} = +17dBm
- Temperature drift: ±0.8dB
- R_L = 10K
- P_{in} = -20dBm



M23



M33-1

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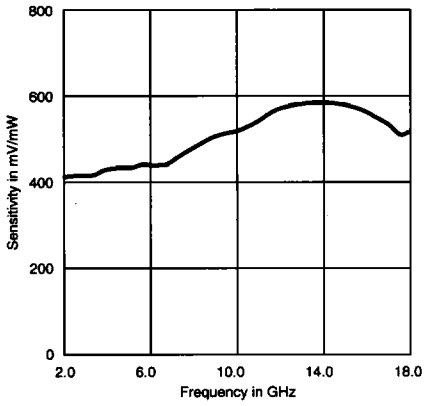
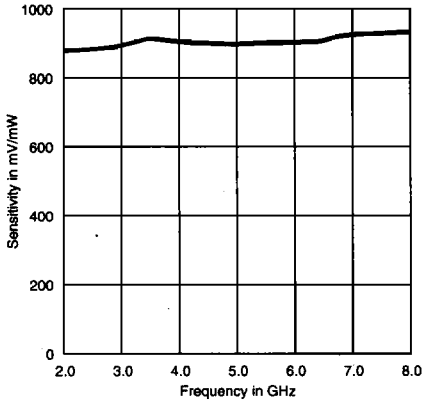
DEFINITIONS

- **Flatness**: Flatness across the R.F. frequency band is defined as half of 10LOG of the ratio of maximum to minimum output voltage with a constant R.F. input power.
- **Sensitivity(K)**: The output voltage sensitivity is the ratio of output votage to input R.F. power in mv/mw. This is generally measured at -20dBm input with R_L=10K.
- **Video Resistance**: Rv is the output resistance of the device measured at -20dBm.

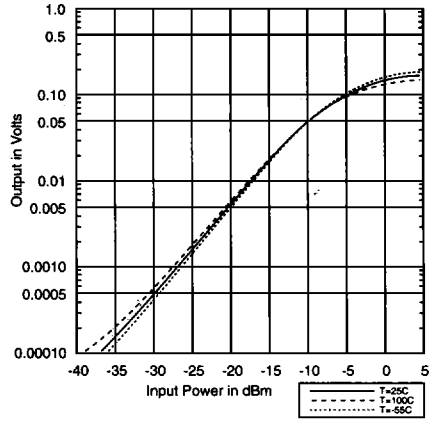
Tunnel Detector MTD0218-M23
Sensitivity vs. Frequency
P_{in}=-20dBm, R_L=10K



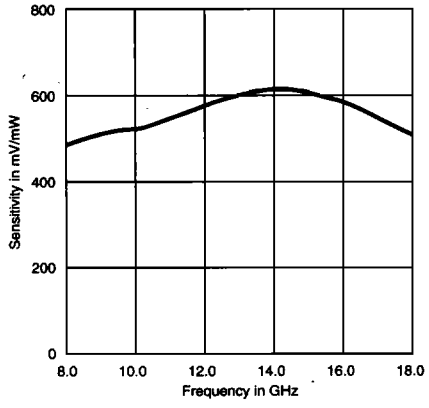
Tunnel Detector MTD0208-M23
Sensitivity vs. Frequency
P_{in}=-20dBm, R_L=10K



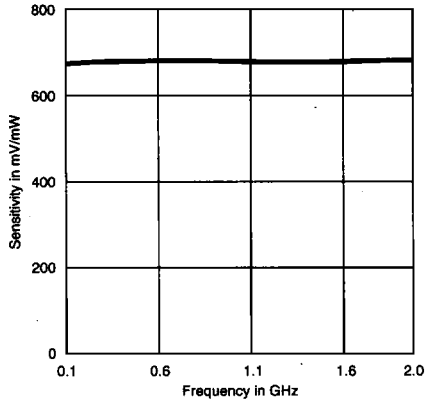
Tunnel Detector MTD0208-M23
Output vs. Input
Variation over Temperature
F=5GHz, R_L=10K



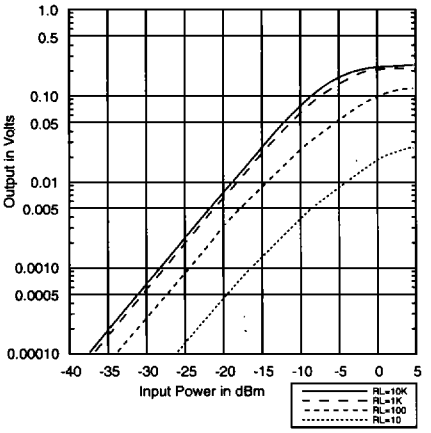
Tunnel Detector MTD0818-M23
Sensitivity vs. Frequency
P_{in}=-20dBm, R_L=10K



Tunnel Detector MTD1002-M23
Sensitivity vs. Frequency
P_{in}=-20dBm, R_L=10K



Tunnel Detector MTD0208-M23
Output vs. Input
Variations in Load Resistance
F=5GHz



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