DM212: Fast Temperature-Stable Detector

General description

DM212 is a tunnel diode microwave coaxial detector intended for 915 MHz and 2450 MHz industrial applications.

The detector delivers well-scaled DC voltage proportional to the input power and assures high temperature stability of the output voltage and low video resistance for fast pulse rise/fall times.

Standard output voltage polarity is negative; optionally it can be positive (DM212P).

Specifications

Frequency range	880 ÷ 930 MHz	2350 ÷ 2550 MHz
Frequency response variation (max)	±0.25 dB	±0.5 dB
Typical output voltage; P_{IN} = 1 mW, R_{LOAD} = 33 kΩ	190 mV	220 mV
VSWR max	2	
VSWR typ	1.3	
Statistical spread of output voltage	±1 dB (3-σ deviation)	
Output voltage polarity	Negative (optionally positive)	
Output voltage temperature variation (5 to 65 ^{0}C)	< 0.5 dB	
Video resistance (typ)	120 Ω	
Max input working power	1 mW	
Max input power (destruction limit)	20 mW	
Input RF connector	N-M	
Output DC connector	BNC-F	
Dimensions mm (L x W x H)	58 x 26 x 26	

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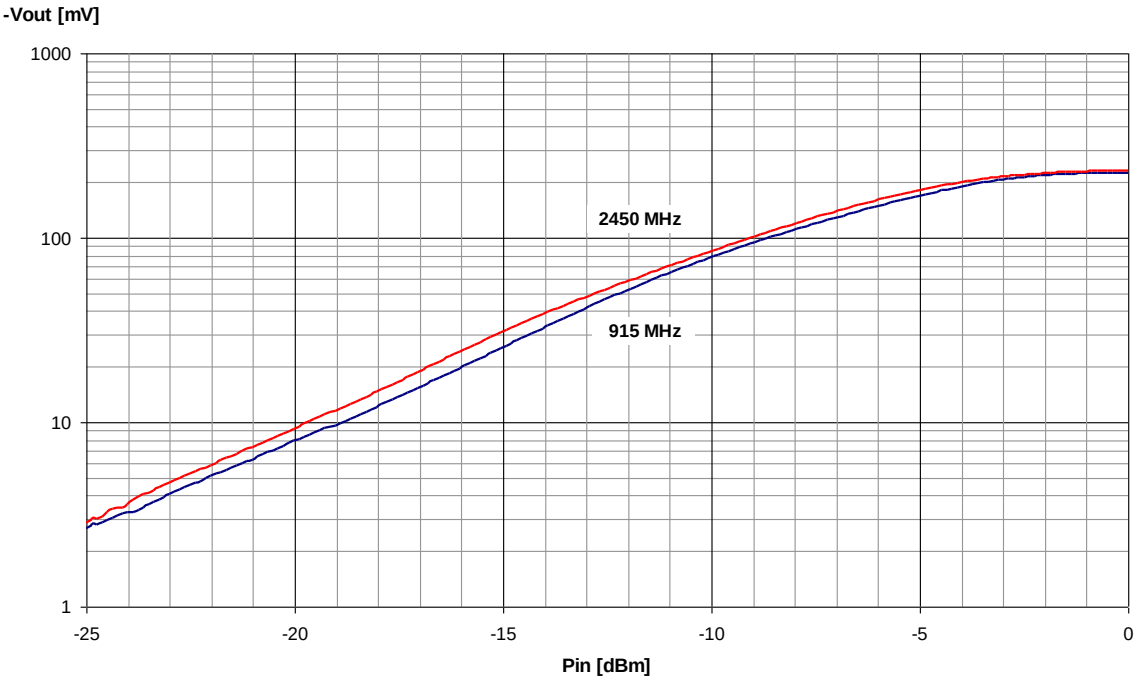
Typical transfer characteristic (f = 915 MHz and 2450 MHz, R_{LOAD} = 33 kΩ, T_A = 25 ^{0}C)



Dimensional drawing (all dimensions in millimeters)