

ANALOG LEVEL DETECTOR *TMJ9910*

Available as: TMJ9910, 5 Pin TO-8 (T5)
 TNJ9910, 4 Pin Sq. Surface Mount (SM3)
 BXJ9910, SMA Connectorized Housing (H6)

Features

- -120 mV Output for -10 dBm Input Power
- ± 1.0 dB Flatness
- Operating Temp. 0 °C to +50 °C
- Environmental Screening Available

Specifications

CHARACTERISTIC	TYPICAL Ta= 25 °C	MIN/MAX Ta = -55 °C to +85 °C
Detected Voltage (mV) f = 500 MHz *^	-120	-90 Min.
Flatness (referred to Input)(dB) f = 10 - 1000 MHz *^	± 0.7	± 1.0 Max.
Variation over Temperature (dB) (referred to input) f=500 MHz*^	± 1	
Tangential Sensitivity(TSS)(dBm) f= 500 MHz, BW _{VID} = 1 MHz*	-45	-40 Max.
Input VSWR, 50 Ohm f = 10 - 500 MHz	1.5:1	1.5:1 Max.
Output Offset Voltage (mV) I _D = I _{REF} = 50 μ A, no RF Drive	± 10	± 15.0 Max.
Differential Voltage Tracking(mV)	± 5	
Output Capacitance (pf)	1000	1300 Max.
Power	Vdc mA	+15 20 Max.

Absolute Maximum (No Damage) Ratings

Ambient Operating Temperature -55°C to +125 °C
 Storage Temperature -62°C to +150 °C
 Bias Current (Diode) 1mA
 Continuous RF Input Power +17 dBm
 Short Term RF Input Power 100 mW (1 Minute Max.)

Note: Care should always be taken to effectively ground the case of each unit.

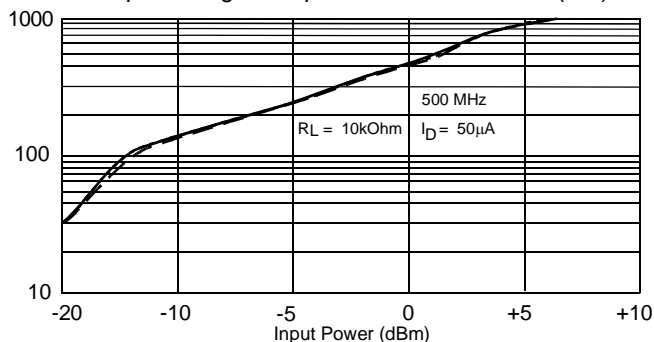
* I_D = 50 μ A, R = 10 kOhm

^ P_{IN} = -10 dBm (RF Input)

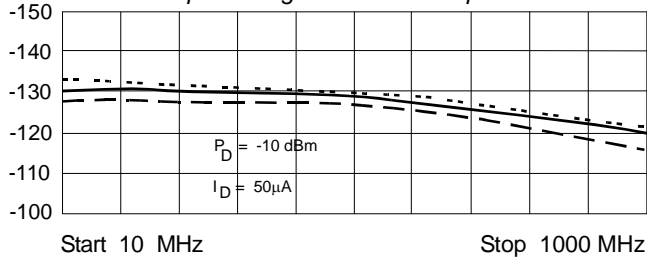
Legend ——— + 25 °C - - - - + 50 °C - - - - - 0 °C

Typical Performance Data

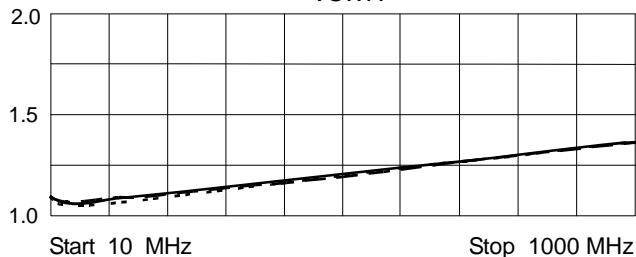
Output Voltage vs Input Power @ 500 MHz (mV)



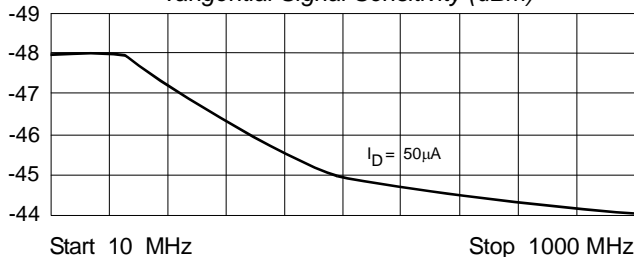
Output Voltage @ -10 dBm Input Power



VSWR



Tangential Signal Sensitivity (dBm)



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