THRESHOLD DETECTOR *TMJ9912*

Packaging Options

TMJ9912, 5 Pin TO-8 (T5)
TNJ9912, 4 Pin 0.450" Sq. Surface Mount (SM3)
BXJ9912, SMA Connectorized Housing (H6)

Features

- External Threshold Control; Voltage or Resistance
- -10 dBm to + 10 dBm Input Operating Range
- **Wide 10 MHz to 3000 MHz Bandwidth**

Specifications

CHARACTERISTIC	TYPICAL Ta= 0 to 60 ºC	MIN/MAX Ta = -55 ºC to +85 ºC
Input Flatness (dB) P =-10 to + 10 dBm	+/- 1.0	+/- 1.5 Max.
Input VSWR (Max)	<1.75:1	2.2:1 Max.
Threshold Control Level (V/Ohms)		
@ P_{IN} = -10 dBm	0.01 / 530	-
@ P_{IN} = 0 dBm	0.265 / 2.3 K	-
@ P_{IN} = +10 dBm	0.870 / 8.3 K	-
Threshold Temp. Stability (dB)		
@ P_{IN} = -10 dBm	-	+/- 1.5 Max.
@ P_{IN} = 0 dBm	-	+/- 1.0 Max.
@ P_{IN} = +10 dBm	-	+/- 0.5 Max.
Threshold Hystersis		
Voltage Control (dB)	<0.1	-
Resistance Control (dB)	>1.0	-
Output @ P_{IN} = Threshold (V)	3.2	2.7 Min
Output Short Circuit Current (mA)	8	3.0 Min.
Rise Time/Fall Time (ns)	75	125
Power Vdc	+12	+12
m A	3	5 Max.

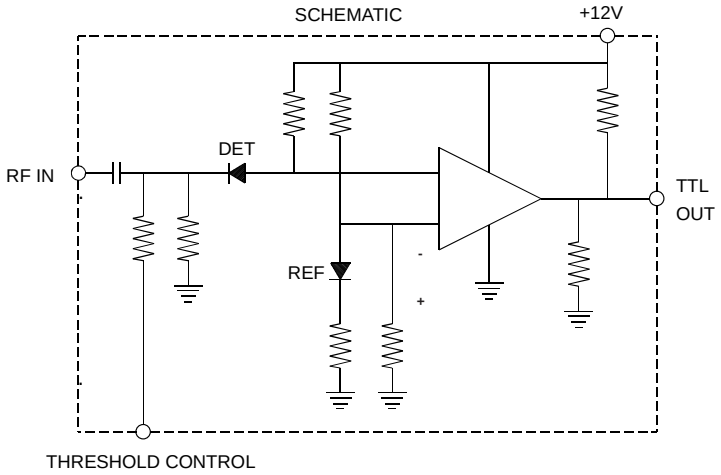
Note: Care should always be taken to effectively ground the case of each unit.

Absolute Maximum (No Damage) Ratings

Operating Case Temperature..... - 55 °C to + 125 °C
Storage Temperature..... -62 °C to + 150 °C
Continuous RF Input Power.....+ 15 dBm
DC Voltage.....+ 17 Volts

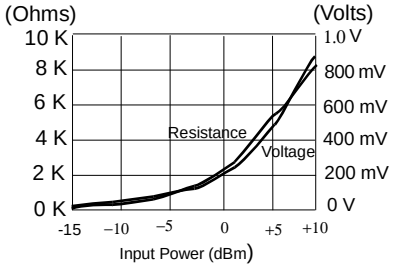
Revision 4/24/2013

SCHEMATIC

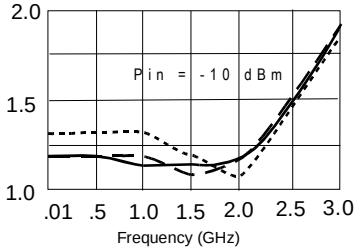


Typical Performance Data

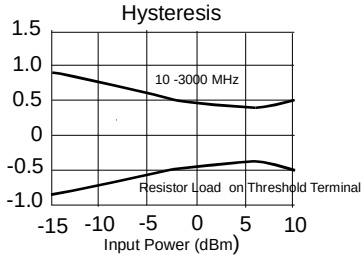
Control Voltage & Resistance vs. Input Power



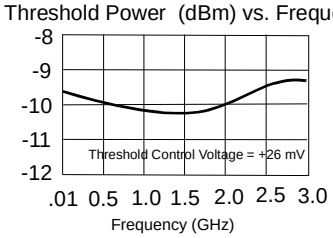
Input VSWR



Hysteresis



Threshold Power (dBm) vs. Frequency



Legend ——— *+25 ºC* – – – *+85 ºC* - - - - - - *-55 ºC*

Spectrum Microwave · 2144 Franklin Drive N.E. · Palm Bay, Florida 32905 · PH (888) 553-7531 · Fax (888) 553-7532

www.SpectrumMicrowave.com *Spectrum Microwave · 2707 Black Lake Place · Philadelphia, Pennsylvania 19154 · PH (215) 464-4000 · Fax (215) 464-4001*