

# 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

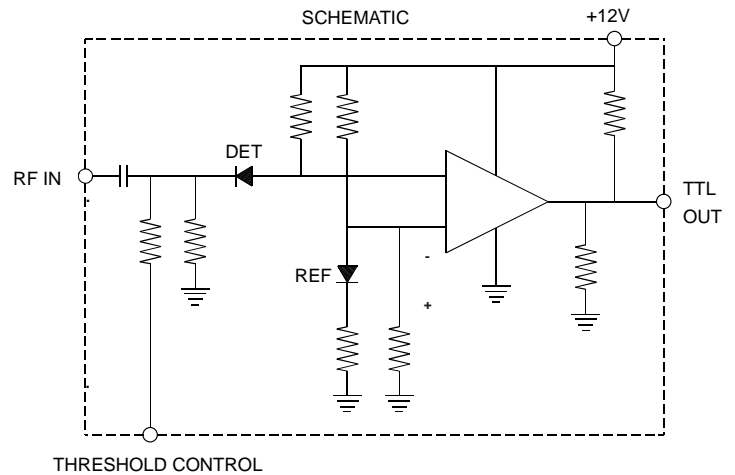
CHARACTERISTIC	TYPICAL Ta= 0 to 60 °C	MIN/MAX Ta = -55 °C to +85 °C
Input Flatness (dB) P = -10 to +10 dBm	+/- 1.0	+/- 1.5 Max.
Input VSWR (Max)	<1.75:1	2.2:1 Max.
Threshold Control Level (V/Ohms) @ P <sub>IN</sub> = -10 dBm @ P <sub>IN</sub> = 0 dBm @ P <sub>IN</sub> = +10 dBm	0.01 / 530 0.265 / 2.3 K 0.870 / 8.3 K	- - -
Threshold Temp. Stability (dB) @ P <sub>IN</sub> = -10 dBm @ P <sub>IN</sub> = 0 dBm @ P <sub>IN</sub> = +10 dBm	- - -	+/- 1.5 Max. +/- 1.0 Max. +/- 0.5 Max.
Threshold Hysteresis Voltage Control (dB) Resistance Control (dB)	<0.1 >1.0	- -
Output @ P <sub>IN</sub> = 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 mA	+12 3	+12 5 Max.

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

## Absolute Maximum (No Damage) Ratings

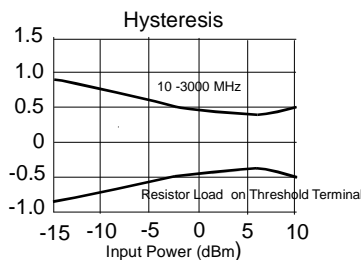
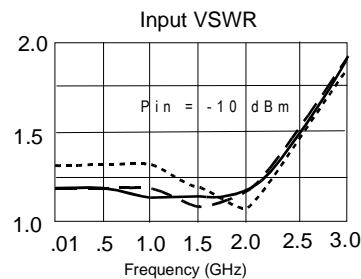
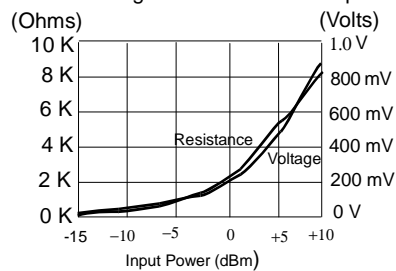
Operating Case Temperature..... -55 °C to +125 °C  
 Storage Temperature..... -62 °C to +150 °C  
 Continuous RF Input Power..... +15 dBm  
 DC Voltage..... +17 Volts

Revision 4/24/2013

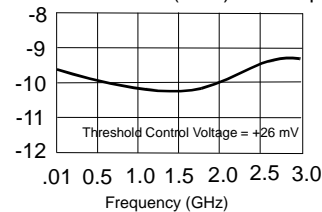


## Typical Performance Data

Control Voltage & Resistance vs. Input Power



Threshold Power (dBm) vs. Frequency



Legend ——— +25 °C    - - - +85 °C    - - - - -55 °C



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