THRESHOLD DETECTOR *TMJ9902*

Packages; TO-8 (5 Pin), Surface Mount and SMA Connectorized Housings

Features

- External Threshold Control - Voltage or Resistance
- -10 dBm to + 10 dBm Input Operating Range
- Wide Operating Frequency 10 - 2000 MHz
- Environmental Screening Available

Absolute Maximum (No Damage) Ratings

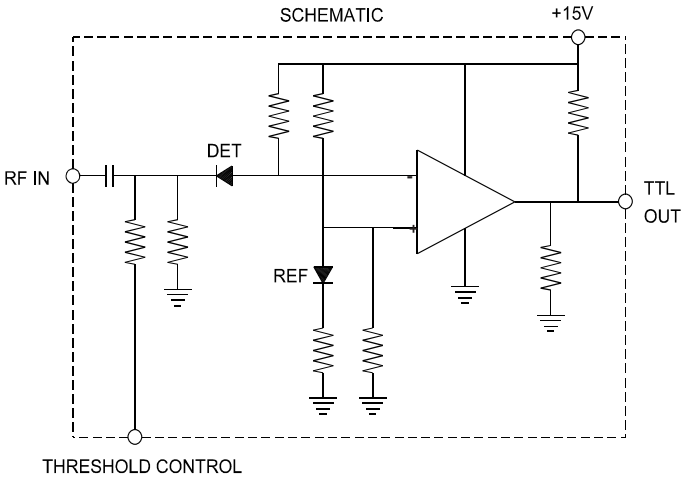
Operating Case Temperature..... -55 °C to +125 °C
Storage Temperature..... -62 °C to +150 °C
Continuous RF Input Power.....+15 dBm
DC Voltage.....+17 Volts

Specifications

CHARACTERISTIC	TYPICAL Ta= 25 ºC	MIN/MAX Ta = -55 ºC to +85 ºC
Input Flatness (dB) P =-10 to +10 dBm	+/- 0.4	+/- 1.0 Max.
Input VSWR (Max)	1.75:1	2.0:1
Threshold Control Level (V/Ohms)		
@ P_{IN} = -10 dBm	0.1/325	-
@ P_{IN} = 0 dBm	0.3/950	-
@ P_{IN} = +10 dBm	1.0/3400	-
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 Hysteresis		
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)	100	125 Max.
Power Vdc	+15	+15
mA	12	15 Max.

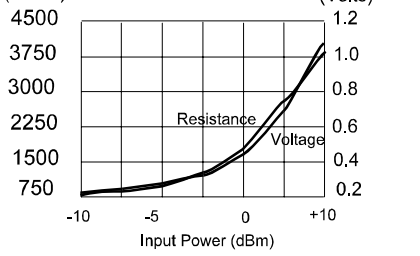
Note: Care should always be taken to effectively ground the case of each unit.

SCHEMATIC

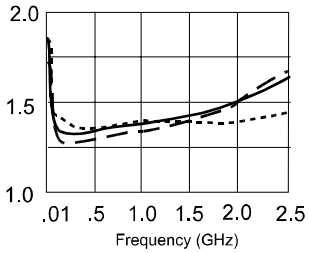


Typical Performance Data

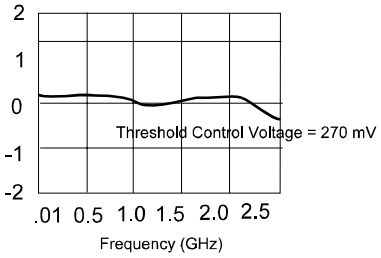
Control Voltage & Resistance vs. Input Power



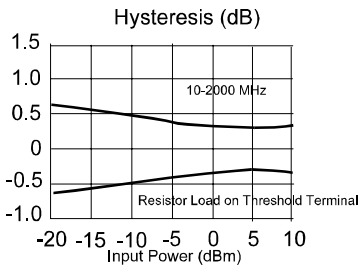
Input VSWR



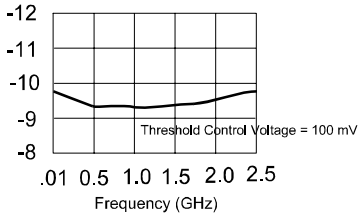
Input Power Flatness



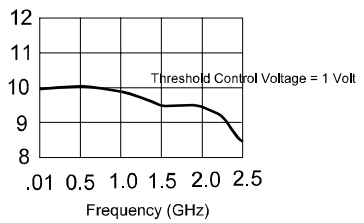
Hysteresis (dB)



Input Power Flatness (dBm)



Input Power Flatness (dBm)



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

9/14/03

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