

THRESHOLD DETECTOR *TMJ9902*

Packages: TMJ9902, 5 Pin TO-8 (T5)
 TNJ9902, 4 Pin Sq. Surface Mount (SM3)
 BXJ9902, SMA Connectorized Housing (H6)

Features

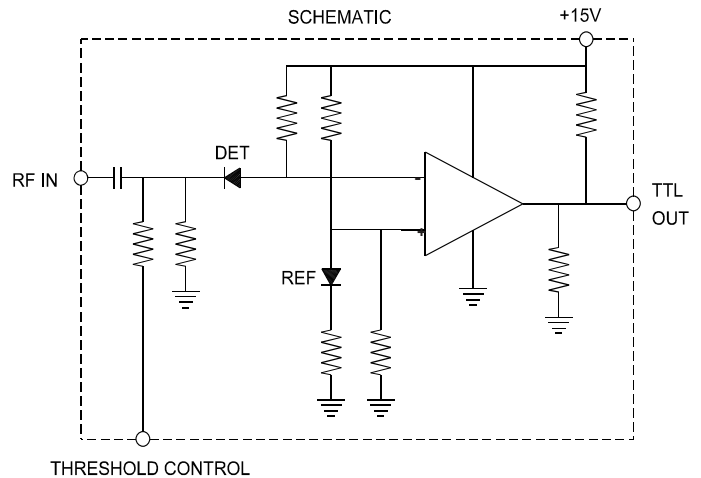
- External Threshold Control - Voltage or Resistance
- -10 dBm to +10 dBm Input Operating Range
- Wide Operating Frequency 10 - 2000 MHz
- Environmental Screening Available

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

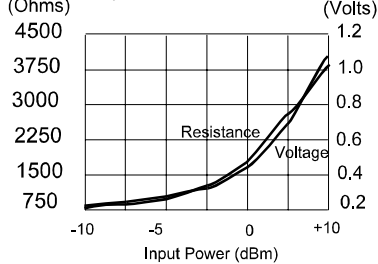
CHARACTERISTIC	TYPICAL Ta = 25 °C	MIN/MAX Ta = -55 °C to +85 °C
Input Flatness (dB) P = -10 to +10 dBm	+/- 0.4	+/- 1.0 Max.
Input VSWR (Max)	1.75:1	2.0:1
Threshold Control Level (V/Ohms) @ P _{IN} = -10 dBm	0.1/325	-
@ P _{IN} = 0 dBm	0.3/950	-
@ P _{IN} = +10 dBm	1.0/3400	-
Threshold Temp. Stability (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.



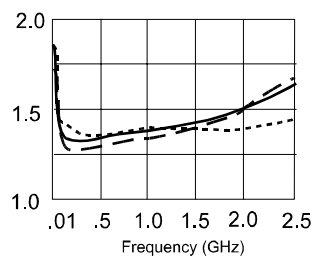
Note: Care should always be taken to effectively ground the case of each unit.

Typical Performance Data

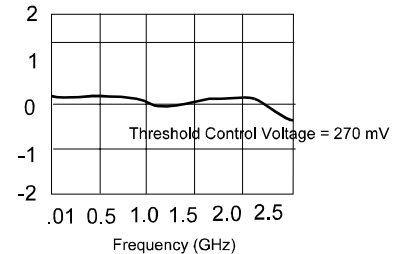
Control Voltage & Resistance vs. Input Power



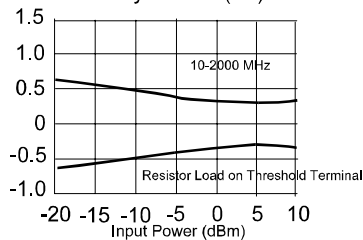
Input VSWR



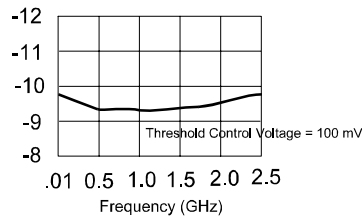
Input Power Flatness



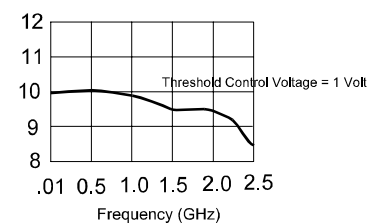
Hysteresis (dB)



Input Power Flatness (dBm)



Input Power Flatness (dBm)



9/14/03