

Threshold Detector

External Threshold Control - Voltage or Resistance

Model TMJ9904

10 to 2000 MHz

Features

- External Threshold Control ; Voltage or Resistance
- -22 dBm to +10 dBm Input Operating Range
- Wide 10 MHz to 2000 MHz Bandwidth

Specifications

CHARACTERISTIC	TYPICAL Ta = 0 to 60 °C	MIN/MAX Ta = -55 °C to +85 °C
Input Flatness (dB) P = -22 to +10 dBm	+/- 1.0	+/- 1.5 Max.
Input VSWR (Max)	<1.75:1	2.0:1 Max.
Threshold Control Level (V/Ohms)		
@ P _{IN} = -22 dBm	.023/180	-
@ P _{IN} = -20 dBm	.026/200	-
@ P _{IN} = 0 dBm	.265/2.0K	-
@ P _{IN} = +10 dBm	.870/6.5K	-
Threshold Temp. Stability (dB)		
@ P _{IN} = -22 dBm	-	+/- 2.5 Max.
@ P _{IN} = -20 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)	75	125
Power		
Vdc	+15	+15
m A	3	5 Max.

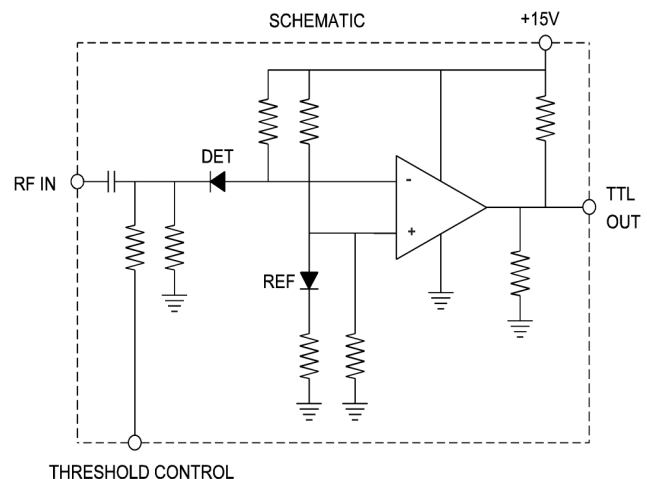
Note: Care should always be taken to effectively ground the case of each unit.

Maximum 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

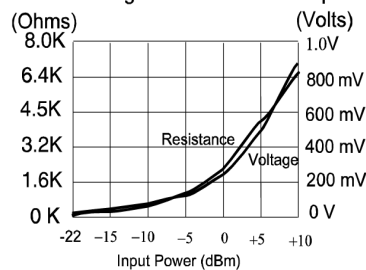
Packaging Options (see Appendix)

5 Pin TO-8,
 Surface Mount and
 Connectorized Housing

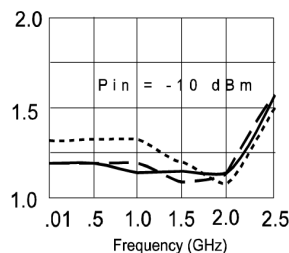


Typical Performance Data

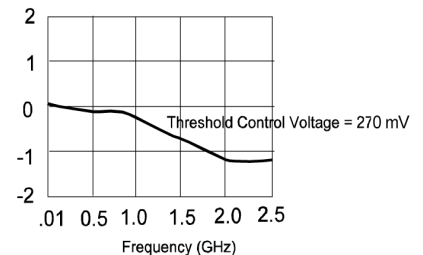
Control Voltage & Resistance vs. Input Power



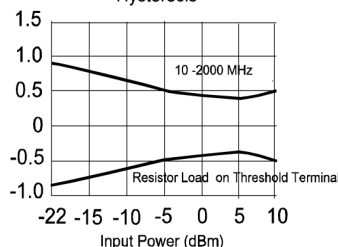
Input VSWR



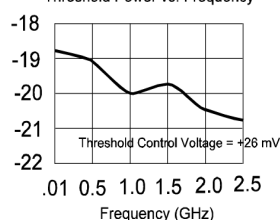
Input Power Flatness (dBm)



Hysteresis



Threshold Power vs. Frequency



Threshold Power vs. Frequency

