

DESCRIPTION:

PMI MODEL TD-A-42T-818 IS A HERMETICALLY SEALED THRESHOLD DETECTOR OPTIMIZED FOR THE 8 TO 18 GHz FREQUENCY RANGE. IT HAS AN INTERNALLY FIXED THRESHOLD LEVEL PROVIDING A MINIMUM SIGNAL LEVEL OF -42dBm AND A MAXIMUM INPUT VSWR OF 2.5:1. THE THRESHOLD SETTING STABILITY IS CONSTANT ± 3.0 dB OVER THE OPERATING TEMPERATURE AND FREQUENCY.

SPECIFICATIONS:

- OPERATING FREQUENCY: 8 GHz TO 18 GHz
- INPUT OPERATING RANGE: -30 dBm TO -42 dBm (8-18 GHz)
- INPUT VSWR: 2.5:1 (8-18 GHz)
- THRESHOLD LEVEL: INTERNALLY FIXED TO PROVIDE A MINIMUM SIGNAL LEVEL OF -42 dBm
- THRESHOLD SETTING STABILITY: ± 3.0 dB OVER THE OPERATING TEMPERATURE AND FREQUENCY RANGE
- MAXIMUM POWER INPUT: +10 dBm (WITHOUT DAMAGE)
- DETECTED OUTPUT: THE DETECTED OUTPUT SIGNAL SHALL BE A TTL LEVEL HIGH WHEN THE RF SIGNAL APPLIED TO THE RF INPUT EXCEEDS THE THRESHOLD LEVEL. ANY SIGNALS BELOW THE THRESHOLD LEVEL SHALL RESULT IN AN OUTPUT LEVEL OF TTL LOW (0) THE TTL OUTPUT SHALL BE BUFFERED SUCH THAT OUTPUT LOADING HAS NO EFFECT ON DETECTOR RESPONSE. THE DETECTED OUTPUT SHALL HAVE A DRIVE CAPACITY OF AT LEAST TWO STANDARD TTL LOADS.
- RESPONSE TIME: FOR ANY RF INPUT GREATER THAN 3 dB ABOVE THRESHOLD, THE MAXIMUM TURN ON RESPONSE TIME MEASURED AT 90% RF TO A TTL "1" OUTPUT SHALL BE 100 μ S. THE MAXIMUM TURN OFF RESPONSE TIME MEASURED AT 10% RF TO A TTL "0" SHALL BE 100 μ S.
- CONNECTORS: THE INPUT SIGNAL CONNECTOR SHALL BE AN SMA FEMALE IN ACCORDANCE WITH MIL-C-39012. THE OUTPUT SIGNAL CONNECTION SHALL BE A SOLDERABLE PIN ($\phi 0.023$ " MIN) WITH A GROUND LUG NEXT TO IT. THE POWER CONNECTION SHALL BE A SOLDERABLE PIN ($\phi 0.023$ " MIN.).
- POWER SUPPLY VOLTAGE: +12V @ 200 mA MAX.
- SIZE: 1.50" (L) x 1.50" (W) x 0.50" (H)
- WEIGHT: 2.0 OUNCES

ENVIRONMENTAL RATINGS:

- TEMPERATURE: 0°C TO +85°C (OPERATING)
-62°C TO +85°C (STORAGE)
- HUMIDITY: MAINTAINS SPEC INTEGRITY W/RELATIVE HUMIDITY OF 95%
- SHOCK: MIL-STD-901, GRADE A, CLASS 1, LIGHT WEIGHT, TYPE B.
- VIBRATION: MIL-STD-167-1, METHOD 204D COND. B
- ALTITUDE: MIL-STD-202F, METHOD 105C COND. B
- TEMPERATURE CYCLE: MIL-STD-202F, METHOD 107D COND. A

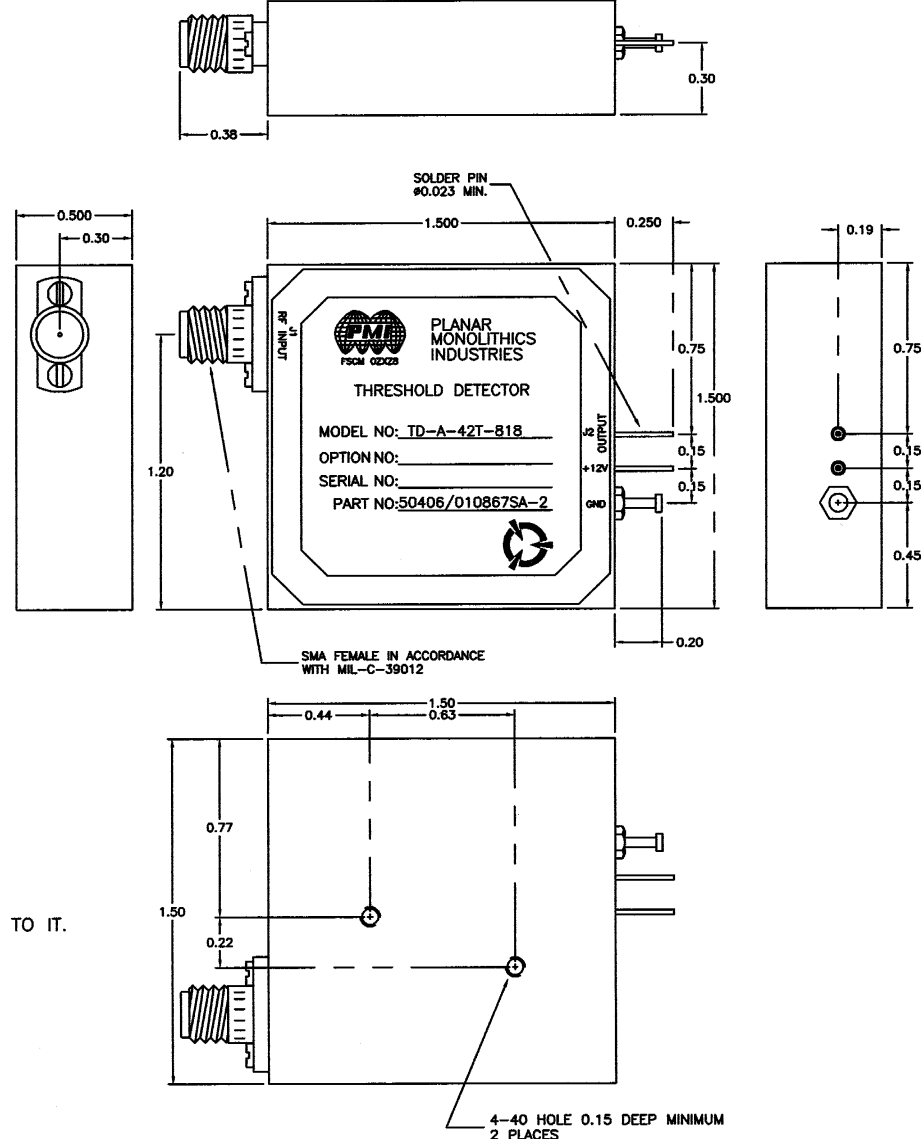
ALL DIMENSIONS ARE IN INCHES
TOLERANCES:

X.XX ± 0.020

X.XXX ± 0.010

NOTE: THE ABOVE SPECIFICATIONS ARE SUBJECT TO CHANGE OR REVISION

REVISIONS				DATE	APPROVED
ZONE	REV.	DESCRIPTION			
-	-	ORIGINAL RELEASE	JOB#00103P	7/21/00	



PART NO.		PLANAR MONOLITHICS INDUSTRIES FREDERICK, MARYLAND	
APPROVALS		TITLE	
DATE		PRODUCT FEATURE	
DRAWN S. TURNER		TD-A-42T-818	
CHECKED		THRESHOLD DETECTOR	
ISSUED		SIZE FSCM NO. DWG NO. REV.	
		A 0ZXZ8 100-5585 -	
		SCALE N/S SHEET 1 of 3	