

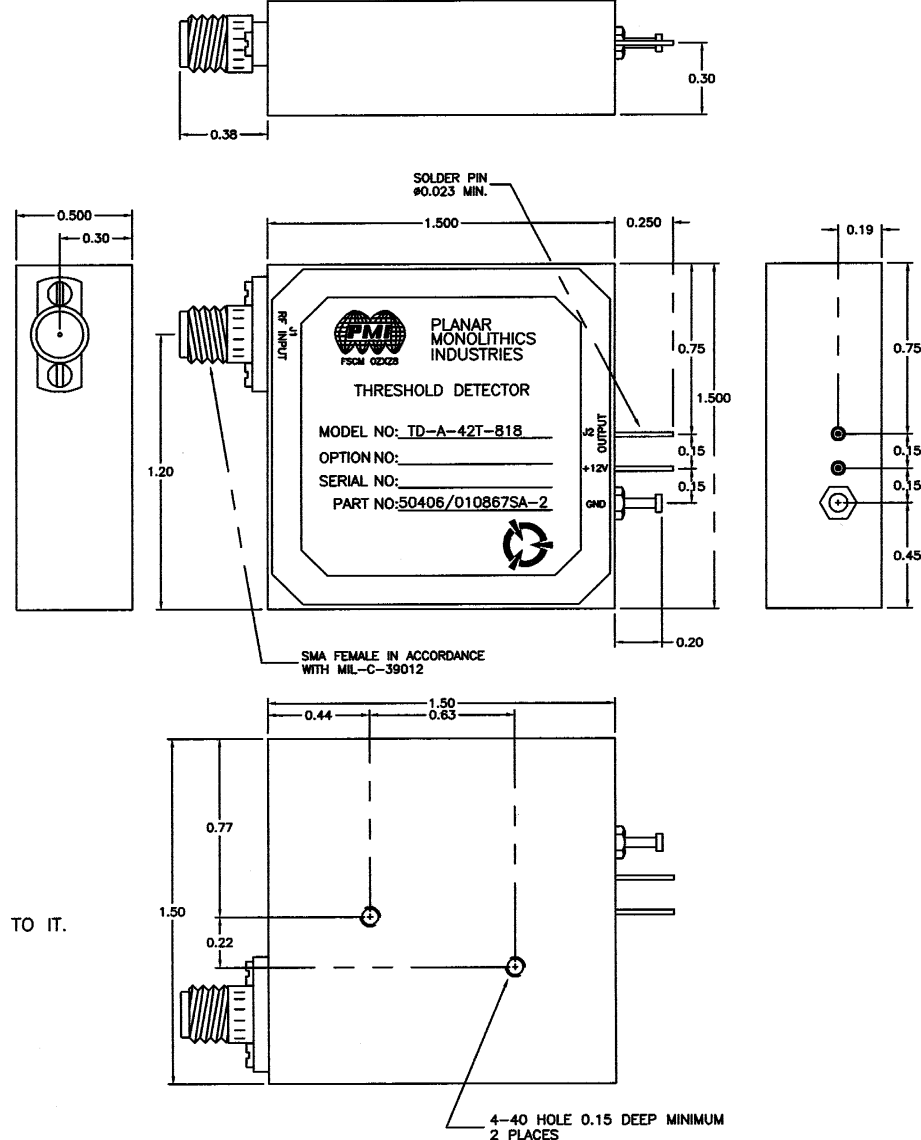
PMI MODEL TD-A-42T-818 IS A HERMETICALLY SEALED THRESHOLD DETECTOR OPTIMIZED FOR THE 8 TO 18 GHz FREQUENCY RANGE. IT HAS AN INTERNALLY FIXED THRESHOLD LEVEL PROVIDING A MINIMUM SIGNAL LEVEL OF -42dBm AND A MAXIMUM INPUT VSWR OF 2.5:1. THE THRESHOLD SETTING STABILITY IS CONSTANT ± 3.0 dB OVER THE OPERATING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

- 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 SODERABLE PIN (ϕ 0.023" MIN) WITH A GROUND LUG NEXT TO IT.
THE POWER CONNECTION SHALL BE A SOLDERABLE PIN (ϕ 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

- 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

X.XXX ±0.010

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



PART NO.			PLANAR MONOLITHICS INDUSTRIES FREDERICK, MARYLAND	
APPROVALS	DATE		TITLE	
DRAWN <i>S. TURNER</i>	7/21/00	PRODUCT FEATURE TD-A-42T-818 THRESHOLD DETECTOR		
CHECKED				
ISSUED		SIZE A	FSCM NO. OZXZ8	DWG NO. 100-5585
		SCALE N/S		REV. —
				SHEET 1 of 3