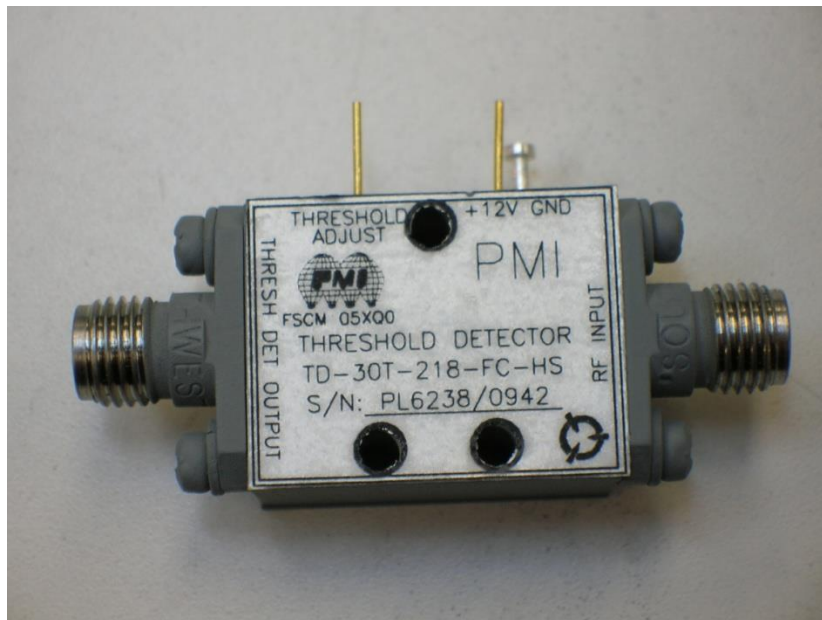




Typical Characteristics For TD-30T-218-FC-HS OPT052

PMI MODEL TD-30T-218-FC-HS OPT052 IS A HIGH SPEED THRESHOLD DETECTOR DESIGNED TO OPERATE OVER THE 0.5 TO 2.0 GHz FREQUENCY RANGE. IT HAS AN EXTERNAL ADJUSTMENT TO VARY THE THRESHOLD LEVEL FROM -10 dBm TO -20 dBm, WITH AN INPUT FLATNESS OF TYPICALLY ± 1.0 dB AND VSWR OF LESS THAN 3.0:1. THIS UNIT COMES IN A VERY SMALL SIZE WITH FIELD REMOVABLE SMA CONNECTORS FOR SURFACE MOUNTING OR TYPICAL COAXIAL CONNECTION.



February 25, 2010
Reported by: Dave Durbin



Typical Characteristics For TD-30T-218-FC-HS OPT052

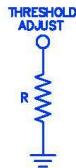
DESCRIPTION

PMI MODEL TD-30T-218-FC-HS OPT052 IS A HIGH SPEED THRESHOLD DETECTOR DESIGNED TO OPERATE OVER THE 0.5 TO 2.0 GHz FREQUENCY RANGE. IT HAS AN EXTERNAL ADJUSTMENT TO VARY THE THRESHOLD LEVEL FROM -10 dBm TO -20 dBm, WITH AN INPUT FLATNESS OF TYPICALLY ± 1.0 dB AND VSWR OF LESS THAN 3.0:1. THIS UNIT COMES IN A VERY SMALL SIZE WITH FIELD REMOVABLE SMA CONNECTORS FOR SURFACE MOUNTING OR TYPICAL COAXIAL CONNECTION.

SPECIFICATIONS

- FREQUENCY RANGE: 0.5 GHz TO 2.0 GHz MINIMUM
- VSWR: 3.0:1 MAXIMUM
- DYNAMIC RANGE: -20 dBm TO -10 dBm MINIMUM, (-20 dBm TO +5 dBm TYPICAL)
- INPUT FLATNESS: ± 2.0 dB MAXIMUM, (± 1.0 dB TYPICAL)
- RESPONSE TIME: 100 ns MAXIMUM, (50 ns TYPICAL)
- OUTPUT: TTL
- POWER SUPPLY: +12V @ 100 mA MAXIMUM
- CONNECTORS:
 - RF: REMOVABLE SMA (FEMALE)
 - OUTPUT: REMOVABLE SMA (FEMALE)
 - THRESHOLD ADJUST: SOLDER PIN
- SIZE: 0.80" x 0.62" x 0.40"
- WEIGHT: 0.50 OUNCE
- FINISH: PAINTED GRAY

NOTE: THE THRESHOLD ADJUST PIN REQUIRES AN EXTERNAL RESISTOR TO GROUND. RESISTOR VALUES FOR -20 dBm AND -10 dBm WILL BE SUPPLIED WITH THE FINAL DATASHEET.

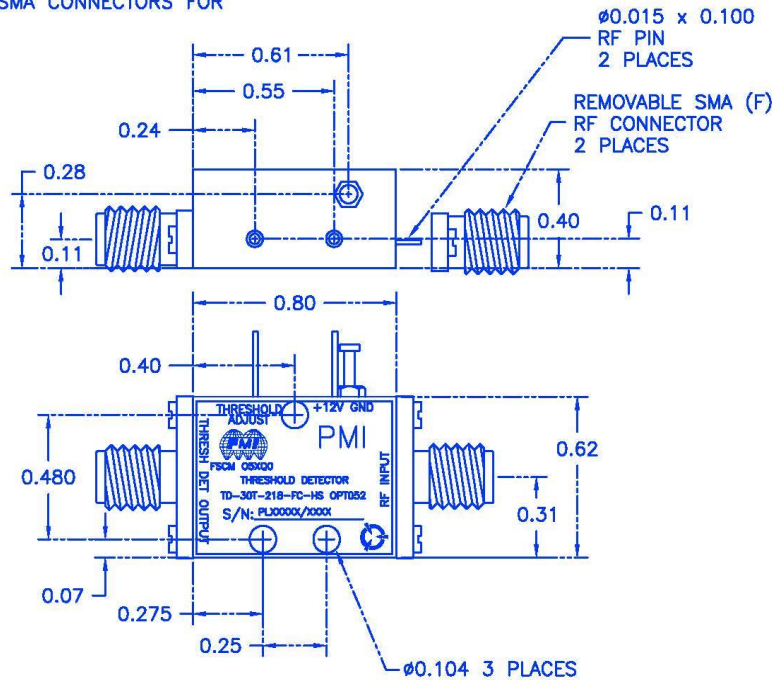


ENVIRONMENTAL RATINGS:

- TEMPERATURE: -55°C TO +85°C (OPERATING)
-65°C TO +125°C (STORAGE)
- HUMIDITY: MIL-STD-202F, METHOD 103B COND. B
- SHOCK: MIL-STD-202F, METHOD 213B COND. B
- VIBRATION: MIL-STD-202F, METHOD 204D COND. B
- ALTITUDE: MIL-STD-202F, METHOD 105C COND. B
- TEMPERATURE CYCLE: MIL-STD-202F, METHOD 107D COND. A

NOTE: SPECIFICATIONS WILL VARY OVER OPERATING TEMPERATURE
NOTE: THE ABOVE SPECIFICATIONS ARE SUBJECT TO CHANGE OR REVISION

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A	ORIGINAL RELEASE	7/18/00	



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ISO 9001:2000 CERTIFIED

APPROVALS		DATE	TITLE	
DESIGN	<i>KM</i>	7/18/00	PRODUCT FEATURE	
CHECKED			TD-30T-218-FC-HS OPT052	
ISSUED			0.5 - 2.0 GHz THRESHOLD DETECTOR	
	SIZE	PFCM NO.	DWG NO.	REV.
	A	05XQ0	27011201	A
	SCALE	N:S		SHEET 1 OF 1

ALL DIMENSIONS ARE IN INCHES
TOLERANCES:
X.XX ±0.020
X.XXX ±0.010



Typical Characteristics

For

TD-30T-218-FC-HS OPT052

1	Frequency Range	0.5 - 2.0 GHz	0.5 - 2.0 GHz	
2	VSWR (@-20 dBm)	3.0:1 (Max)	1.41:1	
3	Dynamic Range	-20 dBm to -10 dBm (Min)	-20 dBm to -10 dBm (Min)	
4	Resistor Value (For Reference)	@ -20 dBm	Test Item Number	Parameters
		@ -10 dBm	158 Ohm	
5	Threshold Variation Frequency (Input Flatness)	± 2.0 dB (Max)	± 1.0 dB	
6	Propagation Delay On	100 nSEC (Max)	45 nS	
7	Propagation Delay Off	100 nSEC (Max)	56 nS	
8	D.C. Power +12V (NoLoad)	100 mA (Max)	36 mA	



Typical Characteristics For TD-30T-218-FC-HS OPT052

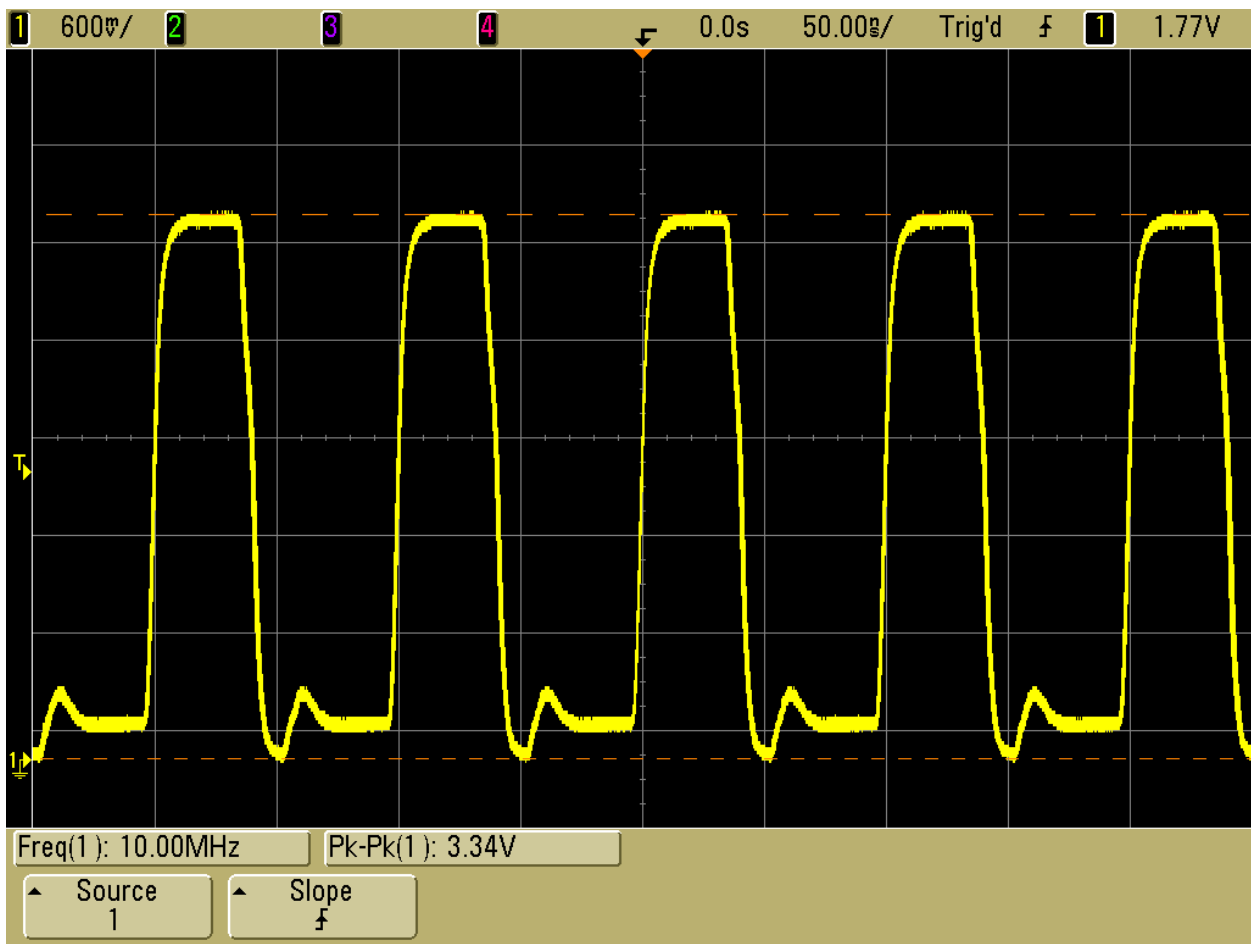
Pulse Response at -20 dBm RF Input





Typical Characteristics For TD-30T-218-FC-HS OPT052

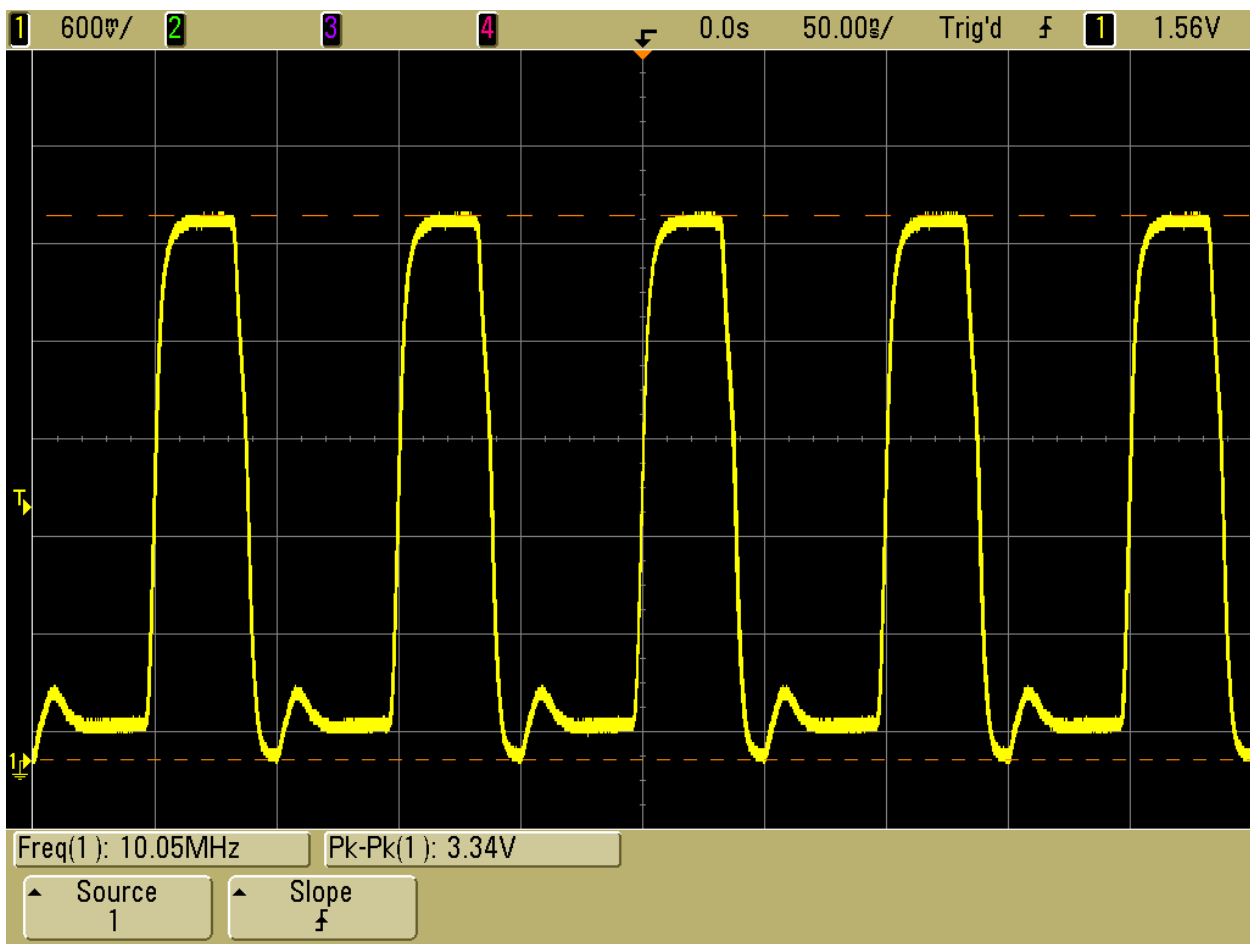
Pulse Response at -10 dBm RF Input





Typical Characteristics For TD-30T-218-FC-HS OPT052

Pulse Response at 0 dBm RF Input





Typical Characteristics For TD-30T-218-FC-HS OPT052

Propagation Delay and Pulse Response at 0 dBm

