

## DESCRIPTION

PMI MODEL: DD-20-218-5PF-1-N-FM-OPT0518 IS A HIGH SPEED, HIGH SENSITIVITY DIODE DETECTOR REQUIRING NO BIAS AND OFFERING EXCELLENT TEMPERATURE STABILITY, WITH A RESPONSE TIME OF LESS THAN 5 NANoseconds. THIS MODEL OPERATES OVER THE 0.5 TO 18 GHz FREQUENCY RANGE.

## SPECIFICATIONS

- FREQUENCY RANGE: ----- 0.5 TO 18 GHz
- VSWR IN/OUT: ----- 3.5:1 TYP  
(MEASURED @ -23 dBm WITH 27 kΩ IMPEDANCE)
- FREQUENCY FLATNESS: ----- ±1.5 dB, ±1.0 dB TYP
- SPEED: ----- 5 ns
- VOLTAGE SENSITIVITY: ----- 650 mV/mW, 700 mV/mW TYP
- TANGENTIAL SENSITIVITY: ----- -50 dBm @ 2 MHz VIDEO BANDWIDTH
- VIDEO CAPACITANCE: ----- 5.6 pF
- OUTPUT VOLTAGE: ----- NEGATIVE (POSITIVE IS AVAILABLE)
- MAX INPUT POWER: ----- +17 dBm
- CONNECTORS: ----- SMA (F) INPUT & SMA (M) OUTPUT
- SIZE: ----- 0.5" X 0.5" X 0.22" (EXCLUDING CONNECTORS)
- FINISH: ----- BLUE EPOXY POLIMIDE COATING IAW  
MIL-C-22750, TYPE I OVER EPOXY POLIMIDE  
PRIMER IAW MIL-P-23377, TYPE I, CLASS 1 OR 3

## ENVIRONMENTAL RATINGS

- TEMPERATURE: ----- -54 °C TO +85 °C (OPERATING)  
-65 °C TO +100 °C (STORAGE)
- HUMIDITY: ----- MIL-STD-202, METHOD 103B COND. B
- SHOCK: ----- MIL-STD-202, METHOD 213B COND. B
- VIBRATION: ----- MIL-STD-202, METHOD 204D COND. B
- ALTITUDE: ----- MIL-STD-202, METHOD 105C COND. B
- TEMPERATURE CYCLE: ----- MIL-STD-202, METHOD 107D COND. A

NOTE: SPECIFICATIONS WILL VARY OVER OPERATING TEMPERATURE

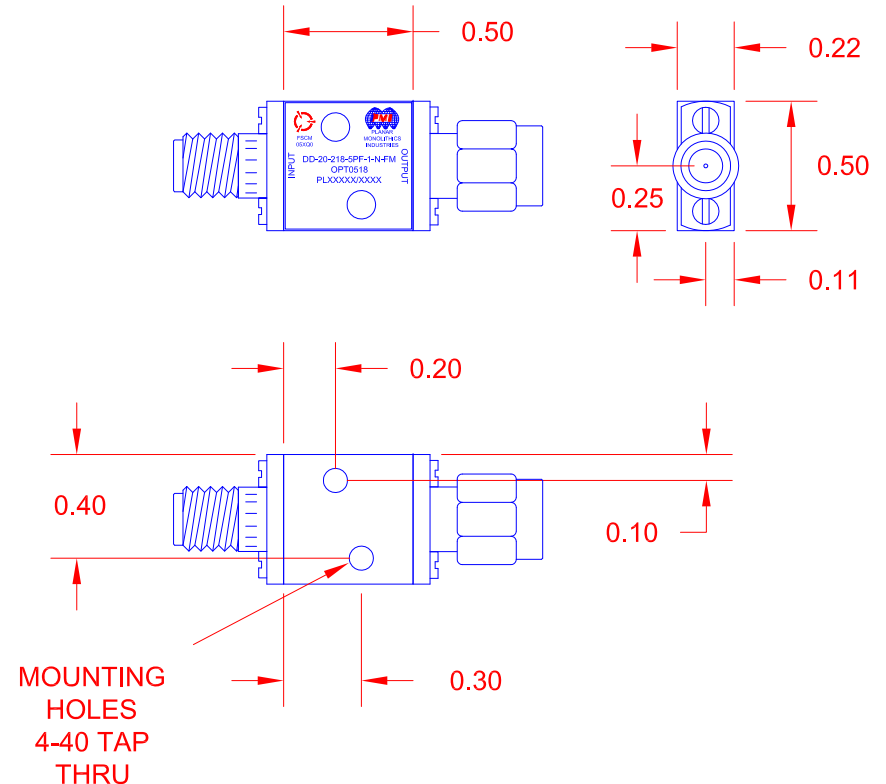
NOTE: THE ABOVE SPECIFICATIONS ARE SUBJECT TO CHANGE OR REVISION

**PMI CONFIDENTIAL AND PROPRIETARY**

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

| REVISIONS |      |                  |          |          |
|-----------|------|------------------|----------|----------|
| ZONE      | REV. | DESCRIPTION      | DATE     | APPROVED |
|           | 1    | ORIGINAL RELEASE | 10/14/16 | JD, PJC  |
|           |      |                  |          |          |
|           |      |                  |          |          |

## MECHANICAL OUTLINE



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| APPROVALS           |  | DATE     | TITLE   |                   |                     | REV. |
|---------------------|--|----------|---|-------------------|---------------------|------|
| DRAWN<br><i>SPU</i> |  | 10/28/15 | PRODUCT FEATURE<br>DD-20-218-5PF-1-N-FM-OPT0518 |                   |                     | 1    |
| CHECKED             |  |          | SIZE<br>A                                       | FSCM NO.<br>05XQ0 | DWG NO.<br>27031045 |      |
| ISSUED              |  |          | SCALE<br>N:S                                    |                   | SHEET<br>1 OF 1     |      |