

## DESCRIPTION

THE MODEL DD-20-218-5PF-1-N-M 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. THE FREQUENCY RANGE IS 2 TO 18 GHz.

## SPECIFICATIONS

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

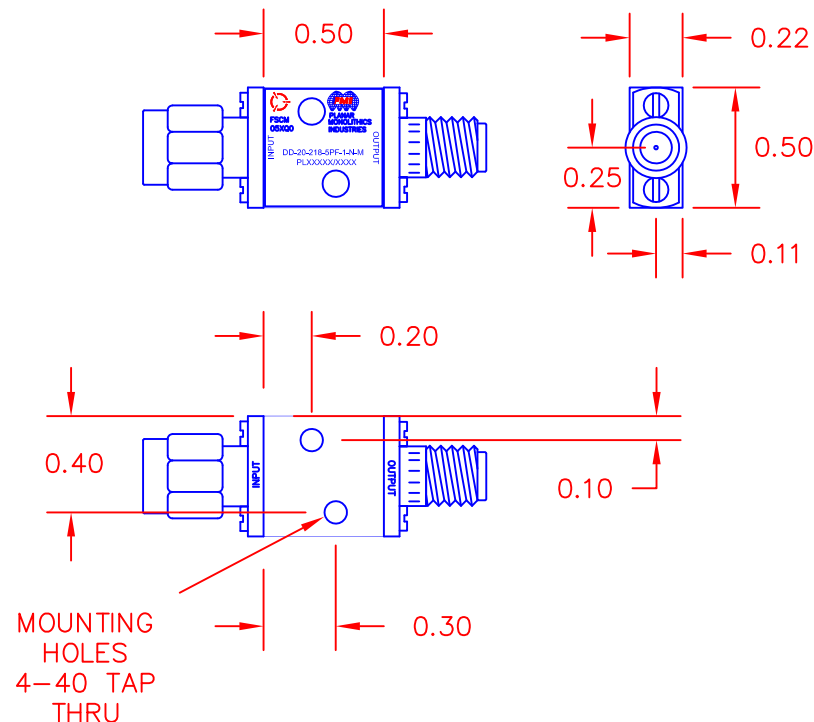
## ENVIRONMENTAL RATINGS

- **TEMPERATURE:**..... -54°C TO +85°C (OPERATING)  
-65°C TO +100°C (STORAGE)
- **HUMIDITY:**..... MIL-STD-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

ALL DIMENSIONS ARE IN INCHES  
TOLERANCES:  
X.XX  $\pm 0.020$   
X.XXX  $\pm 0.010$

| REVISIONS |      |                  |         |          |
|-----------|------|------------------|---------|----------|
| ZONE      | REV. | DESCRIPTION      | DATE    | APPROVED |
|           | A1   | ORIGINAL RELEASE | 9/15/11 |          |
|           | A2   | ECN # 14-0142    | 8/26/14 |          |



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ISO 9001:2000 CERTIFIED



| APPROVALS |          | DATE     |      | TITLE                                      |  |
|-----------|----------|----------|------|--------------------------------------------|--|
| DRAWN NJA |          | 9/15/11  |      | PRODUCT FEATURE                            |  |
| CHECKED   |          |          |      | DD-20-218-5PF-1-N-M                        |  |
| ISSUED    |          |          |      | HIGH SPEED HIGH SENSITIVITY DIODE DETECTOR |  |
| SIZE      | FSCM NO. | DWG NO.  | REV. |                                            |  |
| A         | 05XQ0    | 27015561 | A2   |                                            |  |
| SCALE N:S |          | SHEET    |      | 1 OF 1                                     |  |