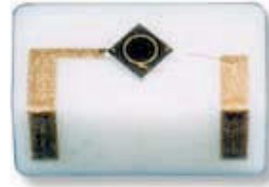


FEATURES

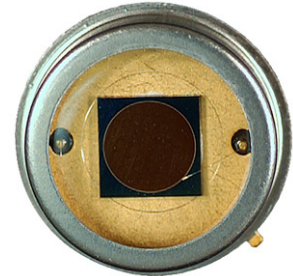
- Planar Structure
- Dielectric Passivation
- High Shunt Resistance
- High Responsivity

APPLICATIONS

- Sensing
- High Sensitivity Instrumentation



PD5M-0xx
Ceramic Sub-Mount



PD5M-1xx
TO8 can Package

PRODUCT DESCRIPTION

The PD5M is an InGaAs photodiode with a photosensitive region 5mm in diameter. Applications include sensing and other high sensitivity instrumentation. Class A devices feature very low dark current and high shunt resistance.

High reliability is assured through planar semiconductor design and dielectric passivation. The device can be assembled on a ceramic sub-mount or in an hermetic TO8 can. Custom packages are an option.

ELECTRICAL CHARACTERISTICS

Table 1: Electrical Specifications

| PARAMETER | MIN | TYP | MAX | UNIT |
|---|------|---------------------|-----|-------------------------------------|
| Dark Current (I_D) ⁽¹⁾ | - | 100 | - | nA |
| Responsivity at 1310nm | 0.80 | 0.90 | - | A/W |
| Responsivity at 1550nm | 0.85 | 0.95 | - | A/W |
| Rise/Fall time | - | 1.2 | - | μ s |
| Shunt Resistance (Class A) ⁽²⁾ | 100 | - | - | K Ω |
| Noise Equivalent Power (Class A) | - | 2×10^{-13} | - | WHz ^{-1/2} |
| D* (Class A) | - | 2×10^{12} | - | cmHz ^{1/2} W ⁻¹ |

(1) 0.3V reverse bias

(2) 0V reverse bias

ELECTRICAL CHARACTERISTICS (cont)

Table 2: Absolute Maximum Ratings

| PARAMETER | MIN | MAX | UNIT |
|------------------------------------|-----|------|------|
| Forward Current | - | 200 | mA |
| Reverse Current | - | 30 | mA |
| Reverse Voltage | - | 1 | V |
| Operating Case Temperature | -40 | +85 | °C |
| Storage Temperature | -40 | +85 | °C |
| Soldering temperature (10 seconds) | - | +250 | °C |

Stresses in excess of the absolute ratings may cause permanent damage. Functional operation is not implied under these conditions. Exposure to absolute ratings for extended periods of time may adversely affect reliability.

ORDERING INFORMATION

| Part Number | Options |
|-------------|--|
| PD5M-0xx | Custom defined size and electrical layout |
| PD5M-1xx | Package: TO8 Number of pins: 3 Cap: Window, AR / Non-AR coated. Cap plating: Gold or nickel |

Please contact Anadigics for the specific part number and pinout that suits your needs

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