

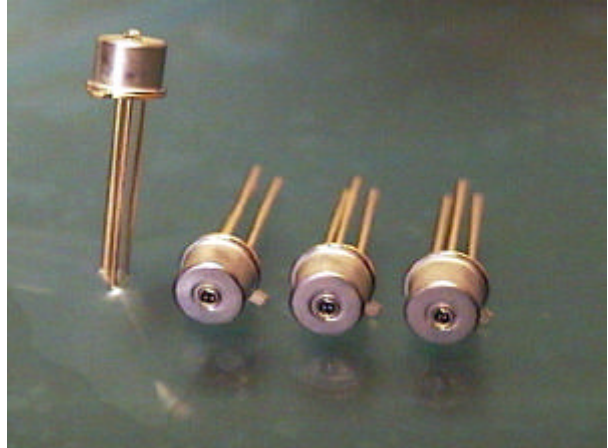
InGaAs PIN PHOTODIODES

Features

- · \varnothing 75 μ m active diameter.
- · High speed response.
- · Wide bandwidth from 1000~1600 nm.
- · High responsivity at 1310 nm.
- · Low dark current.
- · TO-46 hermetic packaging with a lens cap.

Applications

- · Optical communication system
 - Optical data links
 - Optical LANs
 - Subscriber loops



Handling and Safety Precautions

Anti-static protection, such as ionized air blowers or grounded wrist straps with a 1 mega series resistor, should be used at all times when handling laser diodes. In addition, soldering irons should be well grounded.

Overheating caused by soldering of the leads of a laser diode must be prevented. Recommend soldering iron temperature and maximum exposure time are below 260 °C and 10 seconds.

Description

The MCD-3P4C-312 is InGaAs PIN photodiode which has a sensitive area of \varnothing 75 μ m .The small photosensitive region will enable operation at low dark current and low capacitance, and yet large enough to allow efficient coupling to multi-mode fiber .

This product is designed for high speed and low noise applications and is suited to receive the light source from 1000~1600 nm.

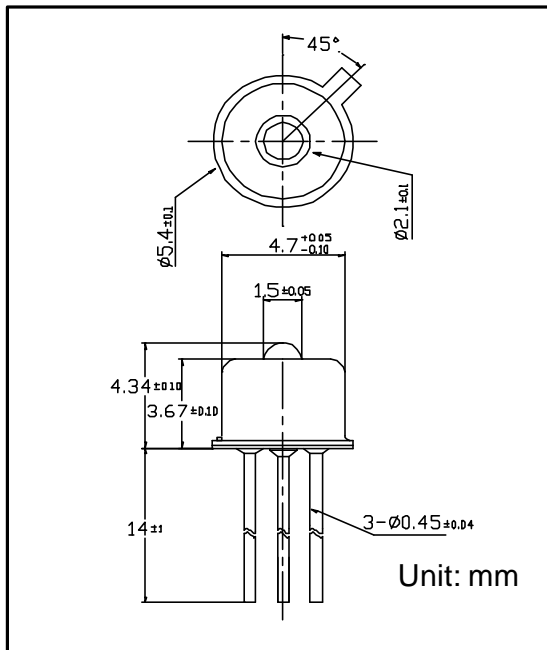
The MCD-3P4C-312 is compatible with industry standard wave or hand solder processes.

.. Absolute Maximum Ratings (Tc = 25 °C)

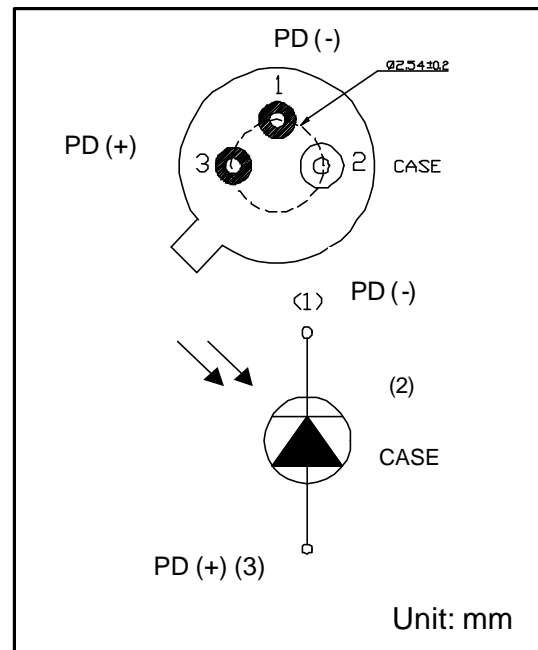
| Parameter | Symbol | Rated Value | Unit |
|----------------------------|------------------|-------------|------|
| Reverse Voltage | V | 20 | V |
| Forward Current | I _F | 2 | mA |
| Reverse Current | I _R | 1 | mA |
| Operating case temperature | T _{OP} | - 40 to +85 | °C |
| Storage temperature | T _{STG} | - 40 to +85 | °C |

.. Optical & Electrical Characteristics (Tc = 25 °C)

| Parameter | Symbol | Test Conditions | Min. | Typ. | Max. | Unit |
|-----------------|----------------|------------------------------|------|------|------|------|
| Active Area | | | - | 75 | - | µm |
| Detection Range | | | 1000 | 1310 | 1600 | nm |
| Responsivity | R | V _R =5V, λ=1300nm | 0.75 | 0.85 | - | A/W |
| Dark Current | I _d | V _R =5V | - | - | 1 | nA |
| Capacitance | C | V _R =5V, f=1MHz | - | 0.75 | 0.9 | PF |
| Bandwidth | BW | V _R =5V, P=1mW | 2 | - | - | GHZ |



Package Dimensions



Pin Connections (Bottom View)

NOTE: Specifications are subjected to change without notice.

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