

InGaAs PIN PHOTODIODES

Features

- ◆ $\varnothing 100\mu\text{m}$ 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.

Preliminary



Description

The MCD-3P4C-302 is InGaAs PIN photodiode which has a sensitive area of $\varnothing 100\mu\text{m}$. 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-302 is compatible with industry standard wave or hand solder processes.

Unity Opto Technology Co., Ltd.

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Sanchung City, 241 Taipei, Taiwan

For prototype and Production call

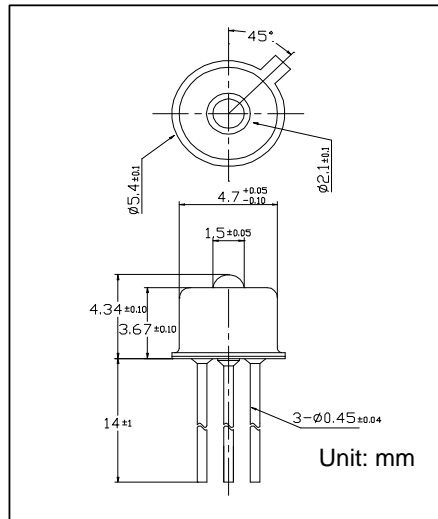
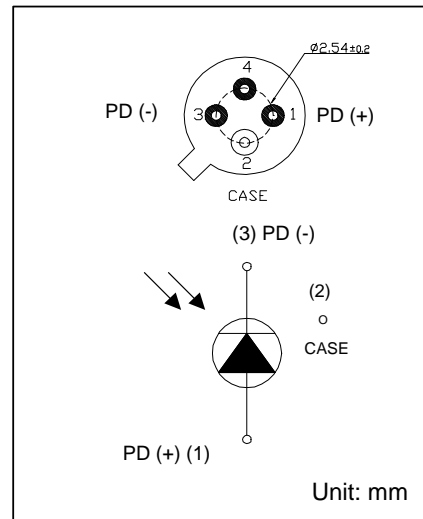
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Preliminary
◆ Absolute Maximum Ratings (Tc = 25 °C)

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			-	100	-	um
Detection Range			1000	1310	1600	nm
Responsivity	R	V _R =5V, λ =1300nm	0.8	0.85	-	AW
Dark Current	I _d	V _R =5V	-	-	1.0	nA
Capacitance	C	V _R =5V, f=1MHz	-	1.0	1.4	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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