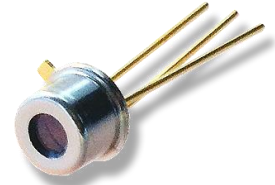




## PT4113

- InGaAs Pin Photodiode
- 900 – 1700 nm Spectral Range
- Ø 75 µm Active Area
- TO-46 Can / Flat Glass Window



### Description

**PT4113** is an InGaAs PIN photodiode with a sensitive area of Ø 75 µm and spectral range from **900 - 1700 nm**. It features wide dynamic range, **high responsibility**, low dark current, and **low capacitance <0.5 pF**. **PT4113** comes in hermetically sealed TO46 package with flat glass window.

### Maximum Ratings\*

Parameter	Symbol	Values		Unit
		Min.	Max.	
Operating Temperature	$T_{OP}$	- 40	+ 85	°C
Storage Temperature	$T_{STG}$	- 40	+ 85	°C
Reverse Voltage	$U_R$		30	V
Forward Current	$I_F$		10	mA
Solder Temperature ( $t_{max}$ 3s)	$T_{SLD}$		+ 260	°C

\*Operating close to or exceeding these parameters may damage the device

### Electro-Optical Characteristics ( $T_{CASE} = 25^{\circ}C$ )

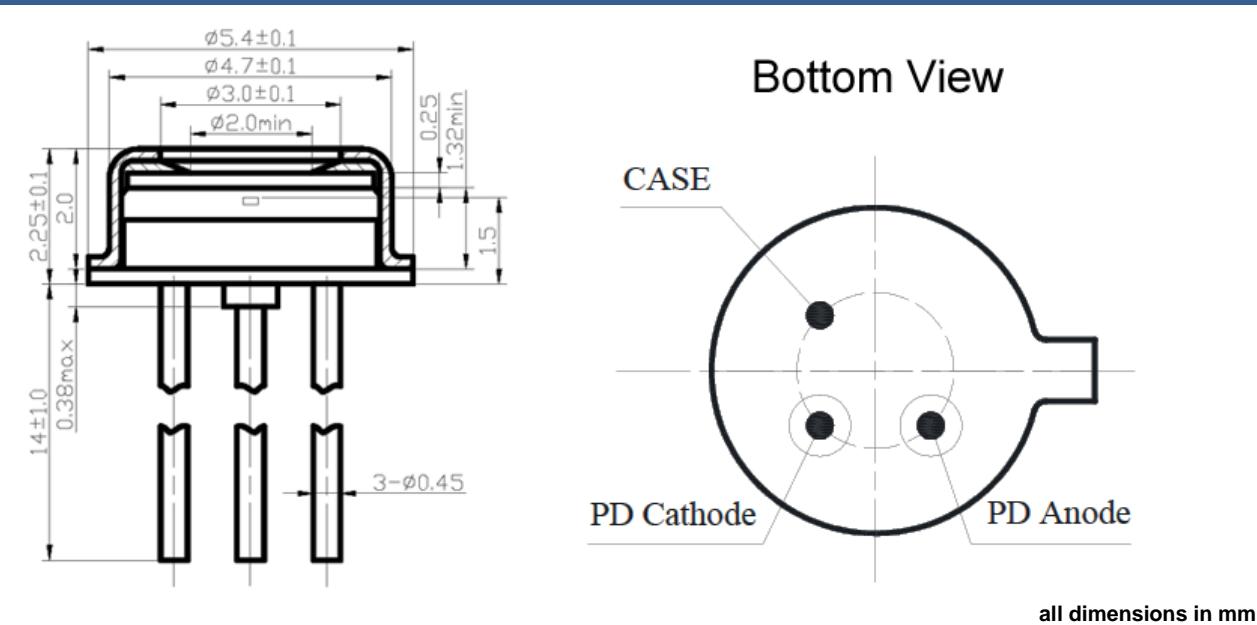
Parameter	Symbol	Condition	min.	typ.	max.	Unit
Spectral Range	$\lambda$		0.9		1.7	µm
Active Area Diameter	$\emptyset$			75		µm
Dark Current	$I_D$	$U_R = -5 V$			0.5	nA
Capacitance	$C_J$	@ 1 MHz, $V_R = -5 V$			0.5	pF
-3dB Bandwidth	$f$	$R_L = 50 \Omega$	2.0			GHz
Responsivity	$S_\lambda$	1.31 µm, $U_R = -5 V$	0.85	0.90		A/W
		1.55 µm, $U_R = -5 V$	0.90	0.95		
Saturation Power	$P_S$	$U_R = -5 V$	3.0			dBm





## Outline & Pinout

TO-46



## Precautions

### Soldering

- Do avoid overheating of the PD
- Do avoid mechanical stress, shock, and vibration
- Do only use non-corrosive flux
- Do not charge the PD with light until it has cooled down to room temperature after soldering

### Cleaning

- **Cleaning with isopropyl alcohol, propanol, or ethyl alcohol is recommended**
- DO NOT USE acetone, chloroform, trichloroethylene, or MKS
- DO NOT USE ultrasonic cleaners

### Static Electricity

- **PDs are sensitive to electrostatic discharge (ESD).**
- Precautions against ESD must be taken when handling or operating these PDs.
- Surge voltage or electrostatic discharge can result in complete failure of the device.

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