

PIN Detector



The PIN detector is a high-performance photodetector made of InGaAs material, designed specifically for wide wavelength response and high sensitivity applications. It can effectively detect wavelengths in the range of 990nm to 1650nm, featuring excellent responsivity and low dark current characteristics. This makes it highly suitable for optical measurement equipment and laser radar systems.

Key Features

- ◆ High sensitivity
- ◆ Low dark current
- ◆ Wide wavelength response
- ◆ High bandwidth
- ◆ Wide operating temperature range

Applications

Optical measurement equipment
Laser radar systems

Technical Specifications (25°C)

Parameter	Symbol	Min. value	Typ. value	Max. value	Unit	Test Conditions
Response wavelength	λ	990		1650	nm	
Responsiveness	R	0.85	0.9		A/W	$\lambda=1310\text{nm}$
			0.95			$\lambda=1550\text{nm}$
			0.2			$\lambda=850\text{nm}$
Dark current	I_D		1	5	nA	$V_R=-5\text{V}$
capacitance	C		4.2	6	pF	$V_R=-5\text{V}, f=1\text{MHz}$
Bandwidth	BW		1.8		GHz	3dB down, $R_L=50\Omega$

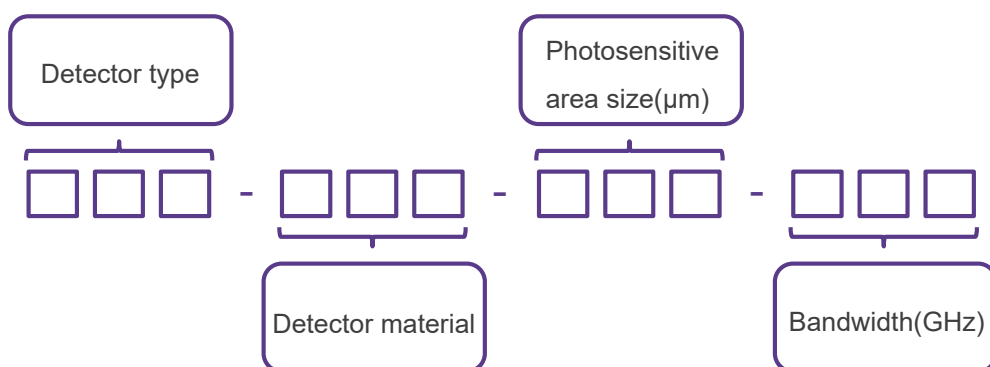
Device Limit Parameters

Parameter	Symbol	Value	Unit
Reverse Voltage	V_{RMAX}	20	V
Forward Current	I	10	mA
Operating Temperature	T_{opr}	-40~85	°C
Storage Temperature	T_{stg}	-40~125	°C

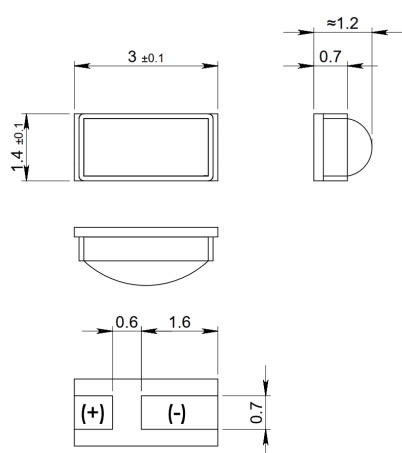
Order Information

Part Number	Photosensitive area size(μm)	Bandwidth(GHz)	Remarks
PIN-InGaAs-300-1.8	300	1.8	-
PIN-InGaAs-300-1.8_PCB3*4*0.8			With PCB

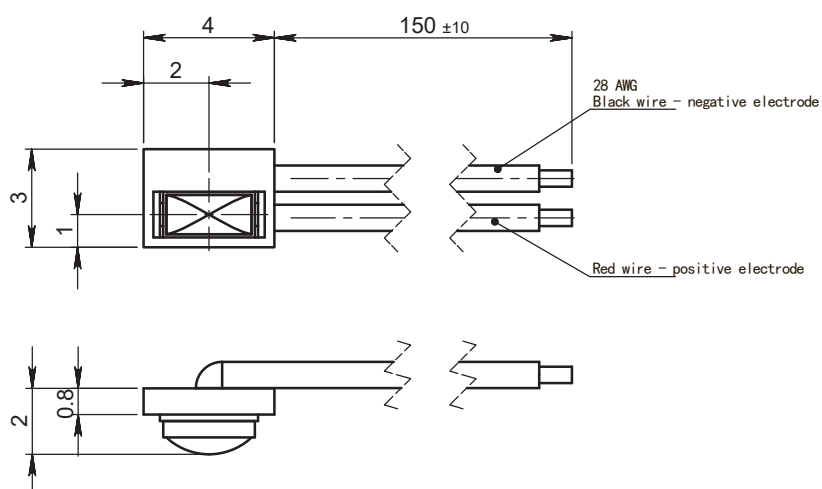
Part Numbering Schema



Mechanical Drawings (in mm)



PIN-InGaAs-300-1.8 Drawing



PIN-InGaAs-300-1.8_PCB3*4*0.8 Drawing