

PD10A Series Amplified Photodetector



❖ Overview

PD10A series amplified photodetector, based on PIN type InGaAs photodiode, can detect 800-1700nm light wave, self-developed precision amplification circuit, can achieve 10^4 gain while the noise is only 15mV. PIN type photodiode is not sensitive to temperature, so this series of photodetector can adapt to more severe working conditions.

❖ Features

- High temperature stability
- Low noise, high gain
- All metal shell, excellent shielding performance
- M6 threaded hole for easy installation

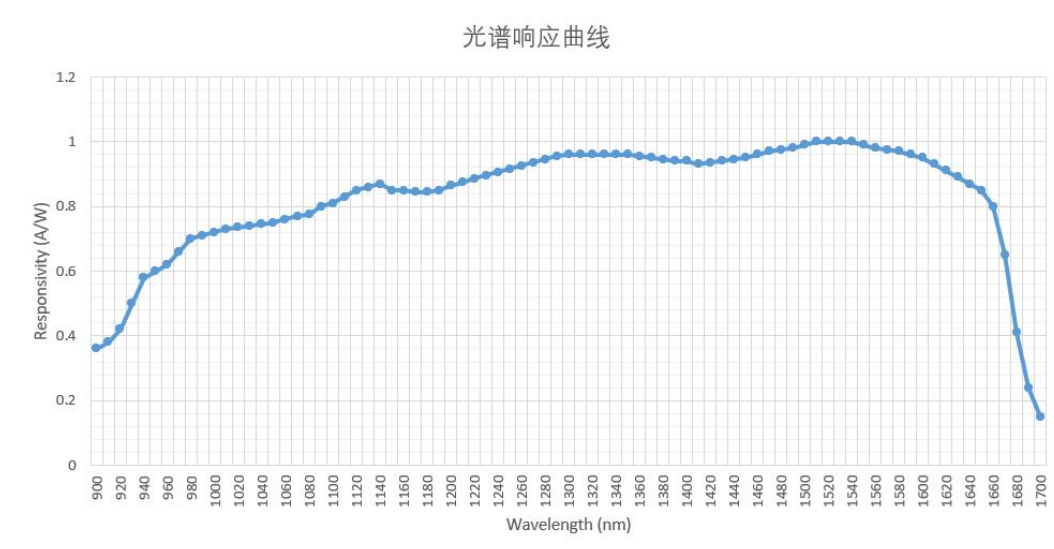
❖ Application

- Detection of low-light signals, spectral measurements
- Detect fast laser pulses
- Rf and pulse waveform extraction of laser light sources
- Heterodyne laser beat frequency signal detection
- Picosecond light pulse detection
- Fiber Optic Communications & Fiber Optic Sensing

❖ Specifications

Item	PD10A-200M	PD10A-500M	PD10A-1G
material	InGaAs	InGaAs	InGaAs
Wavelength	800-1700nm	800-1700nm	800-1700nm
Optical Input	FC	FC	FC
Active Area	75um	75um	75um
Responsiveness	0.9A/W @ 1550nm	0.9A/W @ 1550nm	0.9A/W @ 1550nm
Bandwidth	DC-200MHz	DC-500MHz	DC-1GHz
Rise Time	1.8ns	0.7ns	350ps
Conversion Gain (Max)	$1.6 \times 10^4 \text{V/W}$	$1.2 \times 10^3 \text{V/W}$	680V/W
Minimum optical power	-32.5dBm	-24.3dBm	-22.3dBm
Saturated optical power	-6.5dBm	3.8dBm	5.8dBm
Operating voltage	12VDC $\pm 10\%$	12VDC $\pm 10\%$	12VDC $\pm 10\%$
Operating current	<100mA	<100mA	<100mA
Noise voltage	<15mV	<6mV	<4mV
Output connector	SMA	SMA	SMA
Output impedance	50 Ω	50 Ω	50 Ω
Output coupling mode	DC	DC	DC
Maximum output amplitude	4.0V	2.6V	2.6V
Operating temperature	0~40°C	0~40°C	0~40°C
Storage temperature	0~50°C	0~50°C	0~50°C
Dimensions	81mm x 64mm x 25mm (L x W x D)	81mm x 64mm x 25mm (L x W x D)	81mm x 64mm x 25mm (L x W x D)

❖ RESPONSE CURVE



❖ MECHANICAL DRAWING

