

350-1100nm Silicon-based Bias Photodetector, Sensitive Area $\Phi 3.6\text{mm}$



● Product Description

IdealPhotonics' silicon-based amplified photodetector covers a wavelength range of 200nm–1100nm, with fixed gain. It is suitable for ultraviolet and visible light measurements, offering high bandwidth performance ideal for applications involving weak light intensity and fast speeds, with excellent performance and cost-effectiveness.

● Part Number

PDSBC3E36

● Product features

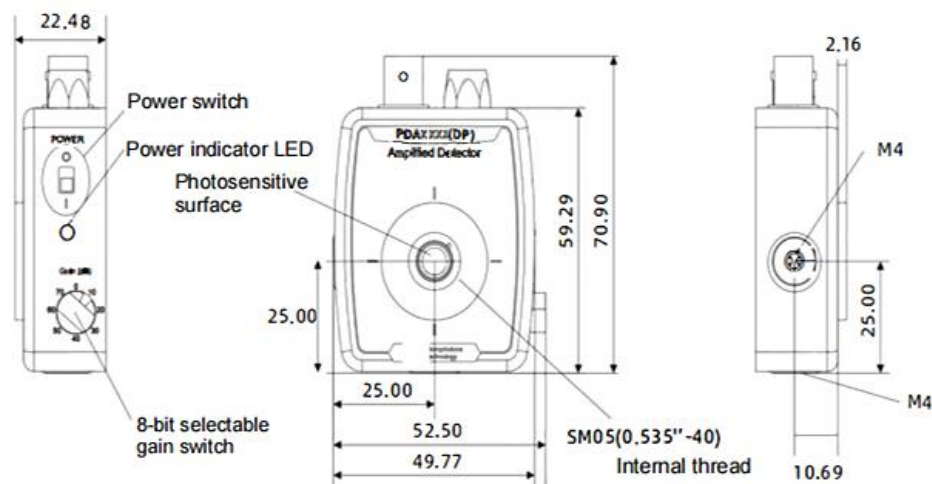
Wavelength range: 200nm–1100nm, commonly used for ultraviolet and visible light measurements、
 Amplified detector with fixed gain, enabling quantitative photoconversion、
 High bandwidth performance, suitable for applications with weak light intensity and fast speeds 、
 Excellent performance, high cost-performance ratio, with technical support、
 Customization Available

● Application area

Medical field、 Printing、 Fiber laser systems

Dimensional Drawing

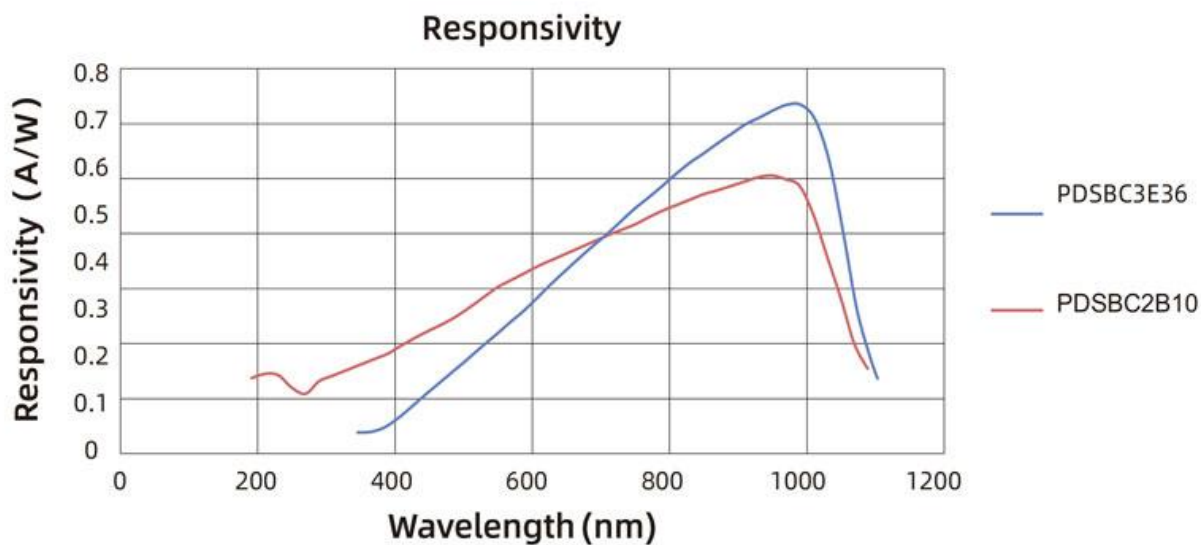
Dimension



Main Parameters

Parameter	Value				
Wavelength Range	200-1100nm	350-1100nm	320-1100nm		
Active area	Φ 1.0mm	Φ 3.6mm	Φ 10.0mm		
Bandwidth	350MHz	25MHz	10MHz		
Rise Time (@50 Ω)	1ns	14ns	35ns		
NEP	$5.0 \times 10^{-14} \text{W/Hz}^{1/2}$	$1.6 \times 10^{-14} \text{W/Hz}^{1/2}$	$2.4 \times 10^{-14} \text{W/Hz}^{1/2}$		
Dark Current	0.3nA(Typ.)/10 nA(Max)	0.35nA(Typ.)/6.0nA(Max)	0.9nA(Typ.)/10nA(Max)		
Junction Capacitance	6pF(Typ.)	40pF(Typ.)	150pF(Typ.)		
Bias Voltage	10V				
Output Current	0~10mA				
Output Voltage	~9V(Hi-Z); ~170 mV(50 Ω)				
Light-sensitive Depth	0.09" (2.2 mm)	0.09" (2.2 mm)	0.13" (3.3mm)		
Operating Temperature	10-40℃				
Storage Temperature	-25-70℃				
Detector Weight	0.10kg				
Undervoltage Indicator	$V_{out} \leq 9V(Hi-Z)$ $V_{out} \leq 170mV(50 \Omega)$				
Dimensions	2.79" X 1.96" X 0.89" (70.9 mm X 49.8 mm X 22.5 mm)				
Power Supply	Power Switch	Signal Interface	Battery Monitoring	Support Rod Interface	Optical Interface
A23 , 12VDC , 40mAh	Sliding Switch	BNC Female Socket	Instantaneous Button	M4 X 2	SM1 X 1 SM0.5 X 1

SI Response Curve:



Attachment 1: Optional Configuration Table

Silicon-based Bias Photodetector	Optional Configurations				
Product Name	Material	Type	Features	Wavelength Range Photodetector Size	Optional Configurations
PD:"Photodetector"	S: Si Silicon	A: Amplified	A: Adjustable Gain	2B10 : 200-1100nm , Φ 1.0mm	
				3E36 : 350-1100nm , Φ 3.6mm	
				3D100 : 320-1100nm , Φ 10.0mm	

Attachment 2: Model and Part Number Cross-reference Table

Model	Part Number	Specs
PDSBC2B10	A80153421	200-1100nm Silicon-based Bias Photodetector, Active area Φ 1.0mm, Rise Time 1ns, Bandwidth 350 MHz
PDSBC3E36	A80153422	350-1100nm Silicon-based Bias Photodetector, Active area Φ 3.6mm, Rise Time 14ns, Bandwidth 25 MHz
PDSBC3D100	A80153423	320-1100nm Silicon-based Bias Photodetector, Active area Φ 10.0mm, Rise Time 35ns, Bandwidth 10 MHz