

320-1100nm Silicon-based Bias Photodetector, Sensitive Area $\Phi 10.0\text{mm}$



● Product Description

IdealPhotonics' silicon-based bias photodetector has a light sensitivity range covering 200nm to 1100nm. It features extremely low noise, fast response, no gain, and low cost. It is suitable for conventional optoelectronic detection applications, offering excellent performance and high cost-effectiveness. Comprehensive orientation technical support is provided, and it is commonly used for ultraviolet and visible light measurement.

● Part Number

PDSBC3D100

● Product features

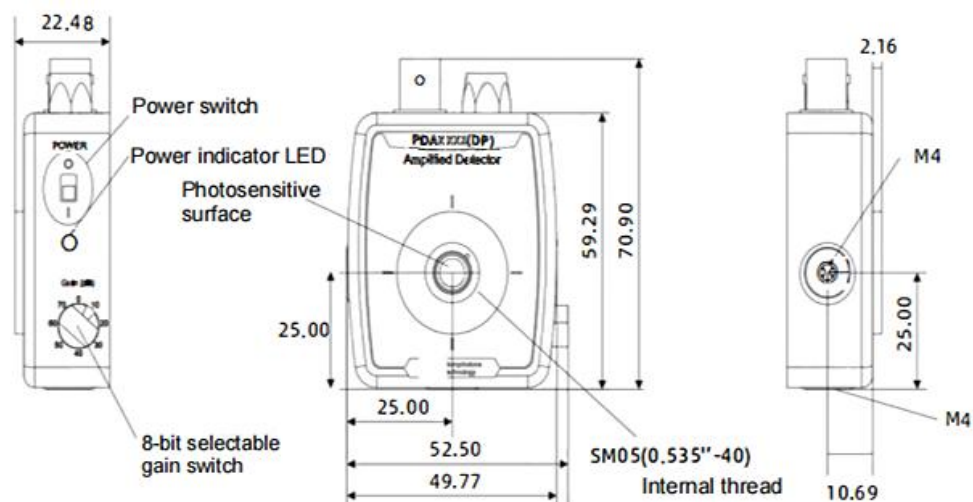
Sensitivity range 200nm-1100nm, commonly used for ultraviolet and visible light measurement 、 Bias-type detector with extremely low noise, fast response, and no gain 、 Low cost, suitable for conventional optoelectronic detection applications 、 Excellent performance, high cost-effectiveness, and full technical support、 Provide customization services

● Application area

Ultraviolet (UV) and visible light measurement

Dimensional Drawing

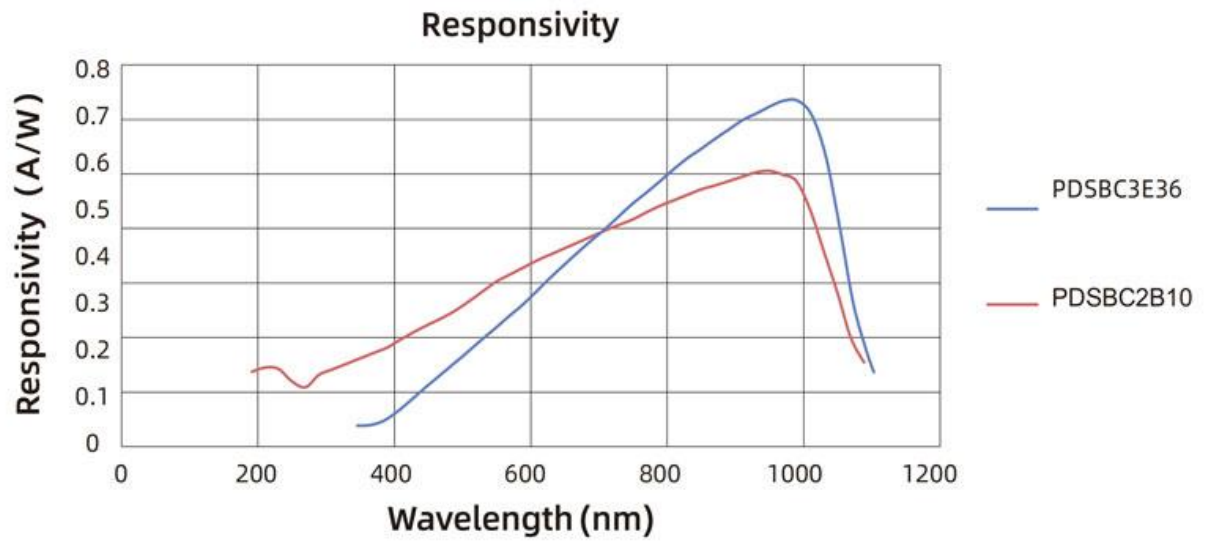
Dimension



Main Parameters

Parameter	Value				
Wavelength Range	200-1100nm	350-1100nm	320-1100nm		
Active area	Φ 1.0mm	Φ 3.6mm	Φ 10.0mm		
Bandwidth Range	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)				
Photosensitive Surface Depth	0.09" (2.2 mm)	0.09" (2.2 mm)	0.13" (3.3mm)		
Operating Temperature	10-40℃				
Storage Temperature	-20-70℃				
Detector Net 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 Battery	Power Switch	Signal Interface	Battery Monitoring	Mounting Interface	Optical Interface
A23 , 12VDC , 40mAh	Slide switch	BNC Female	Instant button	M4 X 2	SM1 X 1 SM0.5 X 1

SI Response Curve:



Attachment 1: Optional Configuration Table

Silicon-based Bias Photodetector	Optional Configuration				
	Product Name	Material	Type	Features	Wavelength Range Sensitive Area
PD: "Photodetector"	S: Si Silicon-based	B: Bias type	C: Conventional type	2B10 :	200-1100nm , Φ 1.0mm
				3E36 :	350-1100nm , Φ 3.6mm
				3D100 :	320-1100nm , Φ 10.0m m

Attachment 2: Model Number 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