400-1000nm Silicon-based Amplified Photodetector, Photodetector Size Φ150μm

Product Description

IdealPhotonics' silicon-based amplified photodetector covers the wavelength range of 200nm to 1100nm, with fixed gain for quantitative photoconversion. It ensures high bandwidth performance while providing sufficient gain, ideal for fast and weak-light photodetection applications. It offers excellent performance, high cost-effectiveness, and technical support. Commonly used in UV and visible light measurements.

Part Number

PDSAF4F015

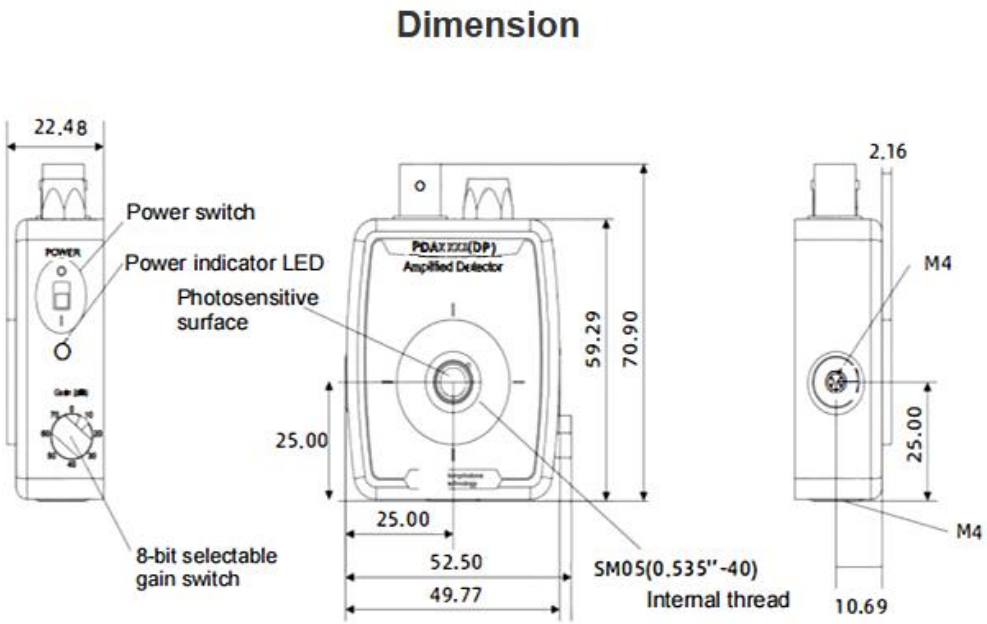
Product features

Wavelength range: 200nm-1100nm, commonly used for UV and visible light measurements 、 Amplified detector with fixed gain for quantitative photoconversion、 High gain and bandwidth for fast, weak-light photodetection applications 、 Excellent performance and cost-effectiveness with technical support、 Customizable options available

Application area

Ultraviolet and visible light measurements

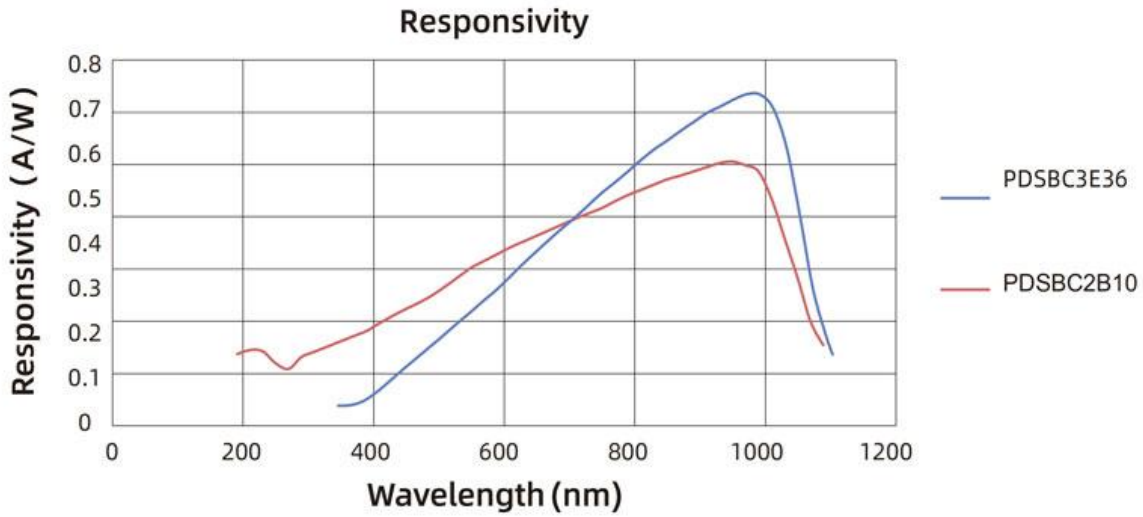
Dimensional Drawing



Main Parameters

Parameters	Value				
Parameter	200-1100nm	400-1000nm	320-1100nm	320-1000nm	
Active area	Φ1.0mm	Φ150um	1.1mm×1.1mm	Φ0.8mm	
Bandwidth Range	DC～150MHz	DC～380MHz	DC～20MHz	DC～50MHz	
Gain Range	Hi-Z Load: 1 × 10^4 V/A; 50Ω Load: 5 × 10^3 V/A	Hi-Z Load: 5 × 10^4 V/A; 50Ω Load: 2.5 × 10^4 V/A	1 × 10^{12} V/A ± 10%	Hi-Z Load: 100kV/A; 50Ω Load: 50kV/A	
Signal Amplitude	Hi-Z Load: 0～10V; 50Ω Load: 0～5V	Hi-Z Load: 0～10V; 50Ω Load: 0～5V	0 ～10V	Hi-Z Load: 0～3.6V; 50Ω Load: 0～1.8V	
NEP	2.92 × 10-11W/Hz1/2	3.6 × 10-11W/Hz1/2	3.0 × 10-15W/Hz1/2	7.8 × 10-12W/Hz1/2	
Photodetector Depth	0.09" (2.2 mm)	0.20" (5.0 mm)	0.10" (2.4 mm)	0.07" (1.8 mm)	
Operating Temperature	10-50℃	10-40℃	10-50℃		
Storage Temperature	-25-70℃				
Detector Weight	0.10kg			0.06kg	
Dimensions	2.79" X 1.96" X 0.89" (70.9 mm X 49.8 mm X 22.5 mm)		2.79" X 1.96" X 0.89" (70.9 mm X 49.9 mm X 22.5 mm)		
Power Interface	Power Supply	Power Switch	Signal Interface	Support Rod Interface	Optical Interface
LUMBERG R SMV3 FEMA LE	LDS12B(DP), ±12V DC Steady voltage linear power supply, 6W, 220VAC	Sliding Switch with LED Indicator	BNC Female Connector	M4 X 2	SM1 X 1 SM0.5 X 1

SI Response Curve:



Attachment 1: Optional Configuration Table

Silicon-Based Amplified Photodetector	Optional Configuration				
Product Name	Material	Type	Feature	Wavelength Range Photodetector Size	Reserved Optional Configurations
PD: "Photodetector"	S: Si (Silicon-Based)	A: Amplified	F: Fixed Gain	2B10：200-1100nm，Φ1.0mm	
				4F015：400-1000nm，Φ150um	
				3D11：320-1100nm，1.1mmX1.1mm	
				3C8：320-1000nm，Φ0.8mm	

Attachment 2: Model and Part Number Cross-Reference Table

Model	Part Number	Specs
PDSAF2B10	A80153417	200-1100nm Silicon-Based Amplified Photodetector, Active area Φ1.0mm, Fixed Gain 1 × 10^4 V/A, Bandwidth Range DC ~ 150MHz
PDSAF4F015	A80153418	400-1000nm Silicon-Based Amplified Photodetector, Active area Φ150um, Fixed Gain 5 × 10^4 V/A, Bandwidth Range DC ~ 380MHz
PDSAF3D11	A80153419	320-1100nm Silicon-Based Amplified Photodetector, Active area 1.1mm×1.1mm, Fixed Gain 1 × 10^{12} V/A ± 10%, Bandwidth Range DC ~ 20MHz
PDSAF3C8	A80153420	320-1000nm Silicon-Based Amplified Photodetector, Active area Φ0.8mm, Fixed Gain 100kV/A, Bandwidth Range DC ~ 50MHz