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400-1100nm High-speed Silicon-based Bias Photodetector, Input Coupling Method: Ball lens



• Product Description

IDEAL The Power of Light PHOTONICS

IdealPhotonics' high-speed silicon-based bias photodetector has a light sensitivity range covering 400nm 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 visible and infrared light measurement.

Part Number

PDSBH2L

Product features

Sensitivity range 400nm-1100nm, commonly used for visible and near-infrared light measurement , Bias-type detector with extremely low noise, fast response, and no gain , Low cost, suitable for intensity-time waveform





measurements of high-speed laser pulses or light-emitting events、 Excellent performance, high cost-effectiveness, and Comprehensive orientation technical support、 Provide customization services

• Application area

Visible and near-infrared light measurement.

Dimensional Drawing



Dimension

Main Parameters

Parameter	Value			
Input Coupling Method	Window piece	Ball lens	FC/PC Optical Fiber Mount	
Wavelength Range	400-1100nm, Peak Wavelength 730nm			
Peak Responsivity	0.46A/W			
3dB Bandwidth (@50Ω)	2G	hz	1GHz	
Rise/Fall Time (@50Ω)	150ps/	'150ps	1ns/1ns	
NEP	9.29× 10-1	5W/Hz1/2	9.5 × 10-15W/Hz1/2	
Dark Current	35	A	126pA	
Output Voltage	2V(N	/lax)	3.3V(Max)	



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Junction Capacitance		1.73pF		
Bias Voltage	12V			
Output Current	0~10mA			
Operating Impedance	50Ω			
Active area	Φ250um			
Photosensitive Surface	Plane Anti-Reflection Coating	Lens Size 0.059" (1.50mm)	Embedded Coupling Lens 0.059" (1.50mm)	
Detector Net Weight	0.18kg			
Operating/Storage Temperature	0-40°C			
Dimensions	2.21" X 1.4" X 0.80" (56.1 mm X 35.6 mm X 20.3mm)			
Power Supply Battery	Signal II	Mounting Interface		
A23 12VDC 40mAh	SMA (DC	Coupled)	M4× 1	

SI Response Curve:







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Attachment 1: Optional Configuration Table

Silicon-based Bias Photodetector			o	ptional Config	juration		
Product Name	Material	Туре	Features	Wavelength Range Sensitive Area	Band width	Input Coupling Method	Optional Configuratio n
PD: "Photodetector "	S: Si Silicon- based	B: Bias type	H: High-sp eed type	4G025: 400-1100n m Φ250um	2 : 2G Hz	W: Window piece	
					1 : 1G Hz	L: Ball lens	
						P: FC/PC Optical Fiber Mount	

Attachment 2: Model Number and Product Code Comparison Table

Model	Part Number	Specs
PDSBH2W	A80153424	400-1100nm High-speed Silicon-based Bias Photodetector, Active area Φ250um, Rise Time 150ps, Bandwidth 2GHz, Input Coupling: Window piece
PDSBH2L	A80153425	400-1100nm High-speed Silicon-based Bias Photodetector, Active area Φ250um, Rise Time 150ps, Bandwidth 2GHz, Input Coupling: Ball lens
PDSBH2P	A80153426	400-1100nm High-speed Silicon-based Bias Photodetector, Active area Φ250um, Rise Time 150ps, Bandwidth 2GHz, Input Coupling: FC/PC Optical Fiber Mount
PDSBH1P	A80153427	400-1100nm High-speed Silicon-based Bias Photodetector, Active area Φ250um, Rise Time 1ns, Bandwidth 1GHz, Input Coupling: FC/PC Optical Fiber Mount

