

## BBPD30 series bias photodetector

### OVERVIEW

The BBPD30 Bias Photodetector (without amplification) is a simple-to-use, high-speed InGaAs detector, It uses FC/APC fiber connector input, SMA output, and contains a 12V bias battery. The maximum bandwidth of the detector can reach 18GHz, The spectral range is 800-1700nm. When connected to an oscilloscope, the laser pulse width can be measured; When connected to a spectrum analyzer, the optical signal frequency response can be measured.

### FEATURES

- ◆ Battery powered, low noise
- ◆ Bandwidth from 2 to 18GHz
- ◆ FC/APC optical input connector
- ◆ Compact structure
- ◆ M4 threaded mounting holes

### APPLICATIONS

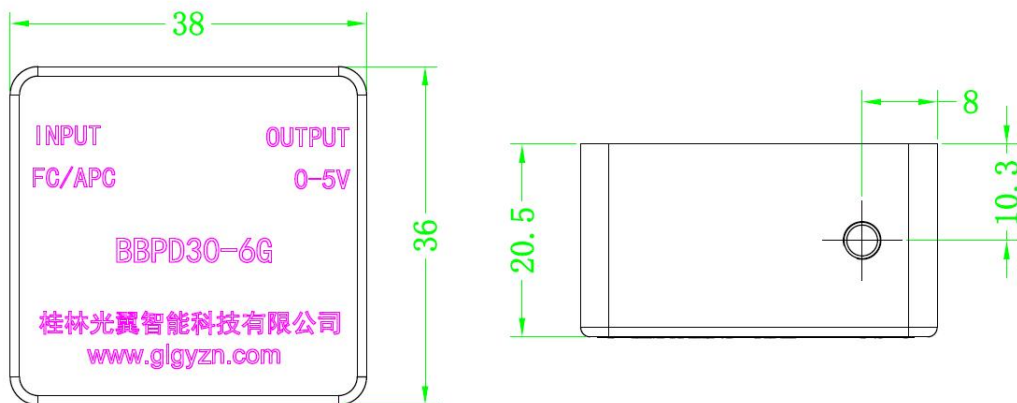
- ◆ Oscilloscope light probe
- ◆ Pulsed light waveform detection
- ◆ Ultra-fast optics
- ◆ Communication systems

### SPECIFICATIONS

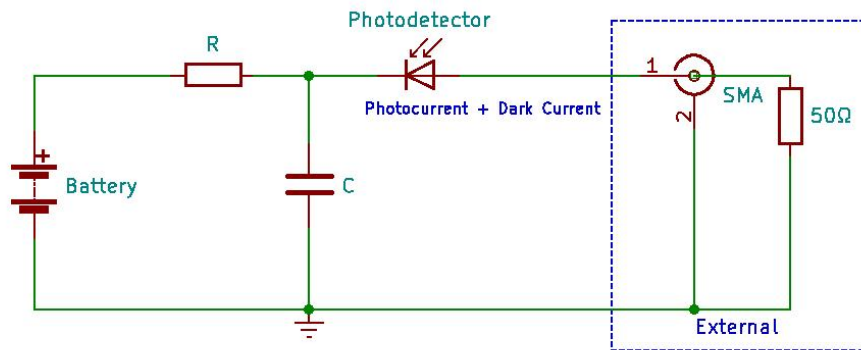
Item	BBPD30-2G	BBPD30-6G	BBPD30-18G
Detector	InGaAs		
Wavelength Range	800-1700nm		
Optical Input	FC/APC		

Active Area	75um	40um	40um
Peak Response	0.9A/W @ 1550nm	0.85A/W @ 1550nm	0.8A/W @ 1550nm
Bandwidth	DC-2GHz	DC-6GHz	DC-18GHz
Rise Time	180ps	60ps	16ps
Dark current	18pA	20pA	2nA
Saturated optical power	5mW	3mW	4mW
Junction capacitance	1pF	0.4pF	0.1pF
Bias voltage	5V		
Output connector	SMA		
Output impedance	50 Ω		
Output coupling mode	DC		
Work temperature	-20~65℃		
Storage temperature	-40~85℃		
Package Size	38mm x 36mm x 20.5mm (长 x 宽 x 厚, 不含连接器和电池盖)		

### MECHANICAL DRAWING



## SCHEMATICS



## OPERATION

- Clean the end of the fiber input connector and plug in the laser emitting source;
- Adjust the voltage grid of the oscilloscope to 10mV/division and set the input impedance of the oscilloscope to 50Ω;
- Connect the output of the detector with the input of the oscilloscope with a coaxial cable;
- Make sure that the power output of the laser source is within the saturated power of the detector, and then turn on the laser source;

## Replace the battery

The detector is powered by an A23 12V battery, First turn the battery cover counterclockwise to remove it, When installing a new battery, pay attention to the positive and negative terminals of the battery, The spring on the battery cover is a negative terminal at one end. If not used for a long time, the battery can be removed.