Ge Large Active Area Photodetector:

800~1800nm, Ge, Biased, Conventional



Description

Our<10 GHz photodetectors contain a PIN photodiode that uses the photovoltaic effect to convert optical power into electrical current. When terminated into a 50 Ω resistor on an oscilloscope, the pulse width of a laser can be measured. When terminated into a 50 Ω resistor on a spectrum analyzer, the frequency response of a laser can be measured. EOT's <10 GHz photodetectors have their own internal bias supply consisting of a long life lithium battery. Plugging a coaxial cable into the photodetector's BNC output connector and terminating with 50 Ω on an oscilloscope or spectrum analyzer is all that is required for operation.

Features

● Ge detector with a spectral response range of 800 nm to 1800 nm, commonly used for near-infrared (NIR) light measurement;

● Biased detector, extremely low noise, fast response, no gain; large target area, near infrared photoelectric detection application;

● Fully compatible with THORLABS models;

● Outstanding performance, high cost-effectiveness, and comprehensive technical support; custom non-standard solutions available.

Advantages

● Monitor the output of Q-switched lasers

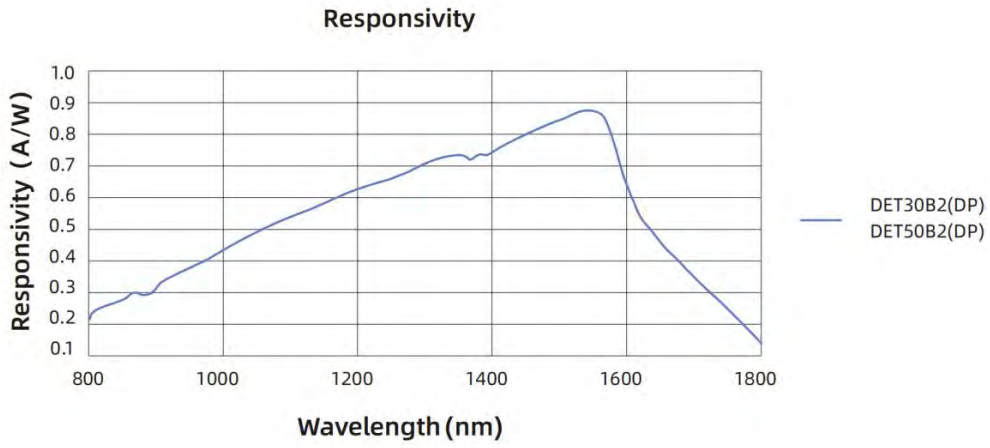
● Monitor the output of mode-locked lasers

Key Parameter

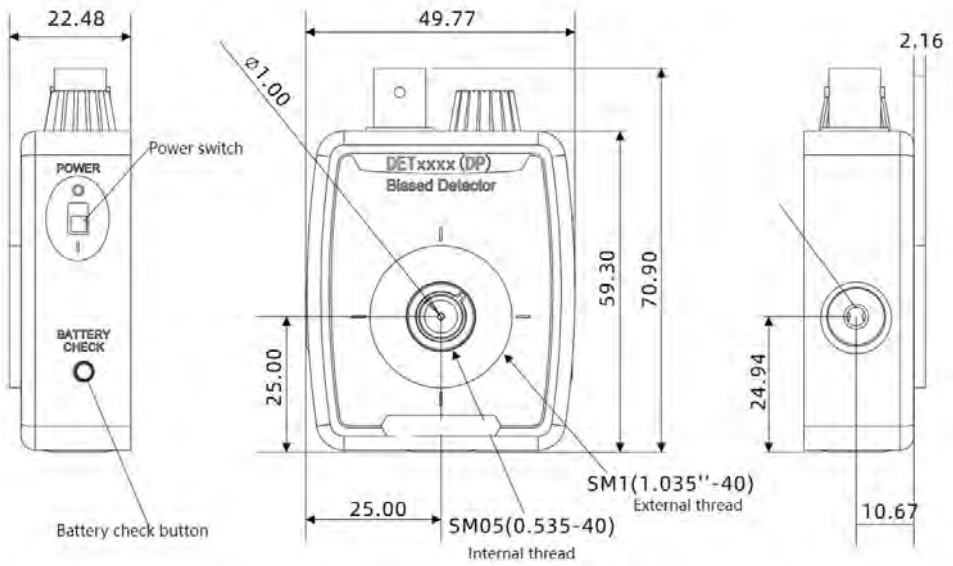
Part Number	DET30B2(DP)	DET50B2(DP)
Spectral response range	800~1800nm	800~1800nm
Active area	φ3.0mm	φ5.0mm
Bandwidth	540kHz	770kHz
Rise time (@50Ω)	650ns	455ns
NEP	2.6 X 10-12W/Hz1/2	4.0 X 10-12W/Hz1/2
Dark current	4.0 μA (Max)	40 μA (Typ.)80 μA (Max)
Junction capacitance	6nF(Max)	4000 pF (Max)
Bias voltage	1.8V	5.0V
Output current	0~10mA	
Output voltage	~9V(Hi-Z); ~170 mV(50Ω)	
Active area depth	0.09" (2.2 mm)	
Detector net weight	0.1kg	
Operating temperature	10～ 50℃	
Storage temperature	-20~70℃	
Under-voltage index	Vout ≤9V(Hi-Z)	
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	Rod interface	Optical interface
A23, 12VDC, 40mAh	Slide switch	BNC female connector	Momentary button	M4 x 2	SM1 x 1 SM0.5 x1

Response curve



Dimension



Product Configuration



Ordering Info

PN#	Spectral response range	Active area	Rise Time (RT)	Bandwidth (BW)	Features
DET30B2(DP)	800 ～ 1800nm	Φ3.0mm	650ns	540kHz	Large active area, designed for near-infrared photodetection applications
DET50B2(DP)		Φ5.0mm	455ns	770kHz	