



PDUV series ultraviolet photodetector

OVERVIEW

The PDUV series is a high-speed, amplified UV-space-coupled photodetector designed for a variety of space-space UV signal test and measurement applications. The device integrates a high-performance gallium nitride (GaN)-based UV detection diode with high sensitivity and immunity to visible and infrared interference. The housing features a 30mm cage optical interface for connection to focusing lenses for free-space opto-coupling and optional FC flange.

FEATURES

- ◆ High responsiveness
- ◆ Visible light blindness
- ◆ All-metal shell with excellent shielding performance

APPLICATIONS

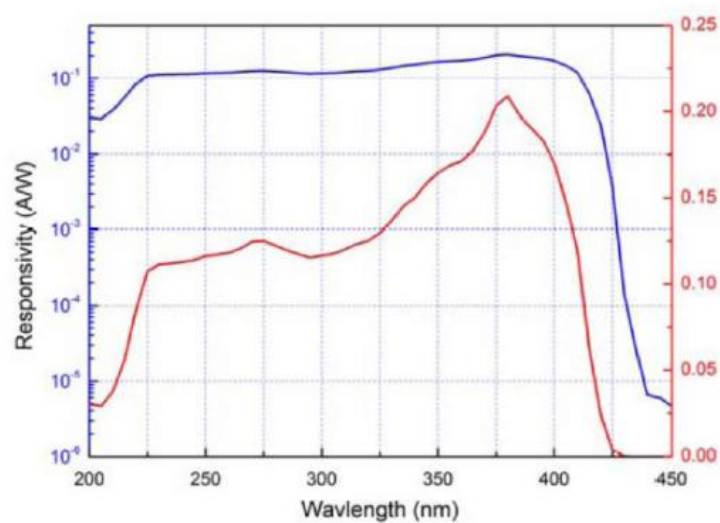
- ◆ UV LED monitoring
- ◆ UV radar measurement
- ◆ Excimer laser measurement
- ◆ Quantum applications
- ◆ Solar blind detection
- ◆ UV curing monitoring

SPECIFICATIONS

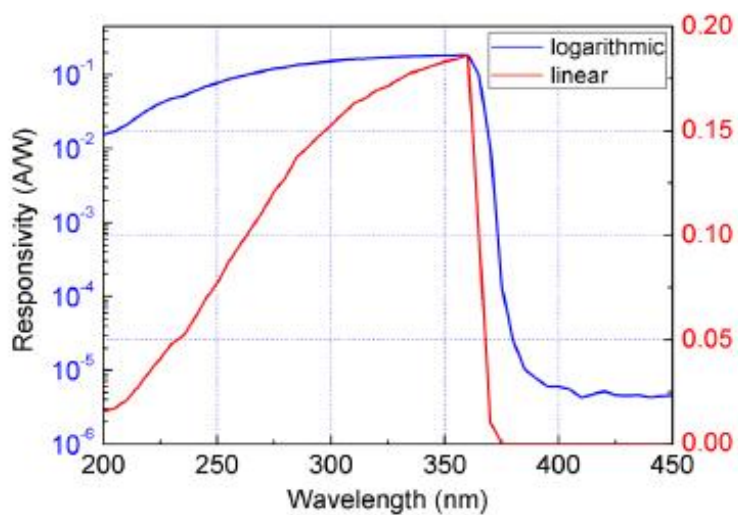
Item	PDUVA-10M	PDUVB-100M	PDUVC-50M
Detector	AlGaIn	GaN	AlGaIn
Wavelength Range	220-420nm	220-370nm	240-280nm
Optical Input	自由空间耦合（可选配 FC 法兰）		

Active Area	1mm ²	0.2mm ²	1mm ²
Peak Response	0.2A/W @ 385nm	0.18A/W @ 355nm	0.12A/W @ 275nm
Bandwidth	DC-10MHz	DC-100MHz	DC-50MHz
Rise Time	36ns	3.5ns	7ns
Maximum gain	2.2x10 ³ V/W	2x10 ³ V/W	1.3x10 ³ V/W
Minimum optical power	-24.4dBm (3.6uw)	-14.4dBm (36uw)	-16.1dBm (24.6uw)
Saturated optical power	2.6dBm (1.8mw)	3dBm (2mw)	4.9dBm (3.1mw)
Noise voltage@50Ω	<8mV	<36mV	<16mV
Maximum output amplitude@Hiz	4.0V		
Work voltage	12VDC ±10%		
Work current	<100mA		
Output connector	SMA		
output impedance	50Ω		
Output coupling mode	DC		
Work temperature	-20~65℃		
Storage temperature	-40~85℃		
Package Size	60mm x 50mm x 32mm (长 x 宽 x 厚, 不含连接器)		

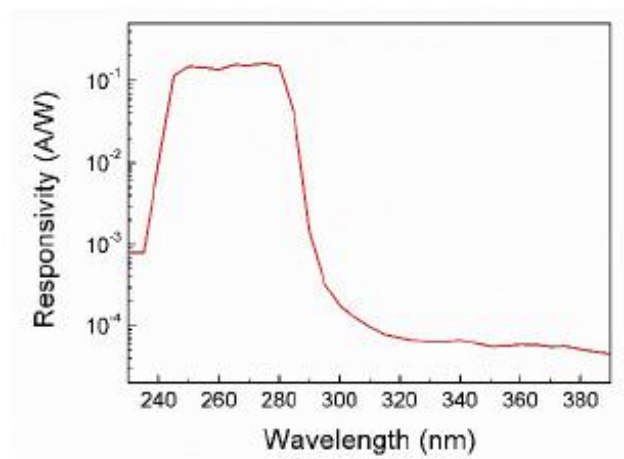
RESPONSE CURVE



PDUVA-10M



PDUVB-100M



PDUVC-50M

MECHANICAL DRAWING

