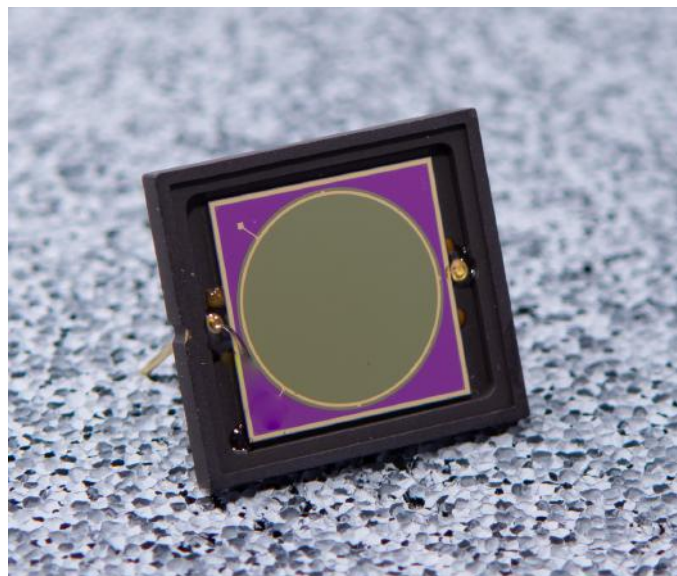


Features

- Low dark current
- 10 mm Ø detection area
- Convenient package options

Applications

- Pulsed light detection
- Free space communication
- Optical metrology



Mechanical Characteristics

Parameter	Value
Detector Material	InGaAs
Active Region Diameter	10 mm
Standard Packages ¹	Ceramic, TO-9, or flat package
Standard Window Materials ¹	Sapphire or borosilicate glass

1. Other packaging and window options are available.

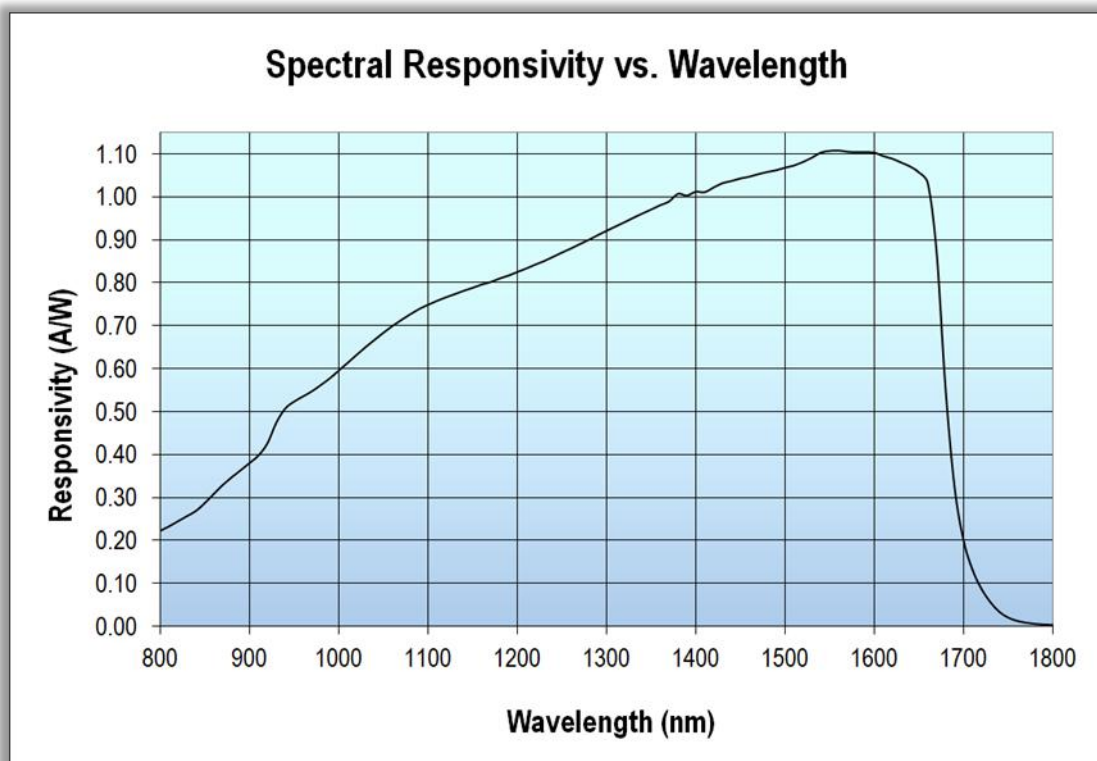
Electro-Optical Characteristics

Parameter	Symbol	Min.	Typical	Max.	Units	Test Conditions (@ 23°C ± 2°C)
Responsivity	R_λ	0.20	0.24		A/W	$\lambda = 850 \text{ nm}$
Responsivity	R_λ	0.85	0.95		A/W	$\lambda = 1300 \text{ nm}$
Responsivity	R_λ	0.90	.95		A/W	$\lambda = 1550 \text{ nm}$
Shunt Resistance	R_{SH}	50	250		k Ω	$V_R = 10 \text{ mV}$
Dark Current	I_D		0.5	50	μA	$V_R = 1 \text{ V}$
Capacitance	C		15		nF	$V_R = 0 \text{ V}$
Capacitance	C		8		nF	$V_R = 1 \text{ V}$
Bandwidth	BW		318		kHz	$R_{LOAD} = 50 \Omega, V_R = 1 \text{ V}$
Rise Time	t_r		1.1		μs	$R_{LOAD} = 50 \Omega, V_R = 1 \text{ V}$
Noise Equivalent Power	NEP		27		pW/ $\sqrt{\text{Hz}}$	$\lambda = 1550 \text{ nm}, V_R = 0 \text{ V}$
Response Non-Uniformity			≤ 2		%	$\lambda = 1550 \text{ nm}, V_R = 0 \text{ V}, 80\%$ of active region
Power Linearity			+6		dBm	$V_R = 1 \text{ V}, \text{tolerance} = \pm 0.2 \text{ dB}$

Absolute Maximum Ratings

Parameter	Symbol	Min.	Max.	Units
Forward Current	I_F		10	mA
Reverse Current	I_R		10	mA
Reverse Voltage	V_R		2	V
Storage Temperature*	T_{ST}	-40	125	°C
Operating Temperature*	T_{OP}	-40	85	°C

PRELIMINARY
REFERENCE ONLY



We have the flexibility to best suit your applications!

GPD offers a variety of standard packaging options, including TO package configurations, chips on ceramic submounts, surface mount and BNC-style housings. Various filters and AR coatings can also be added for further enhancement. If you require something outside of our standard options, we are happy to discuss custom designs tailored to your unique specifications.

PRELIMINARY
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