



## Features

- Low-capacitance design for faster operation
- 3 mm Ø detection area
- Convenient package options

## Applications

- Pulsed light detection
- Free space communication
- Optical metrology



## Mechanical Characteristics

Parameter	Value
Detector Material	InGaAs
Active Area Diameter	3 mm
Standard Package <sup>1</sup>	TO-5
Standard Window Thickness <sup>1</sup>	0.025" ± 0.005"
Window Index of Refraction <sup>1</sup>	1.49

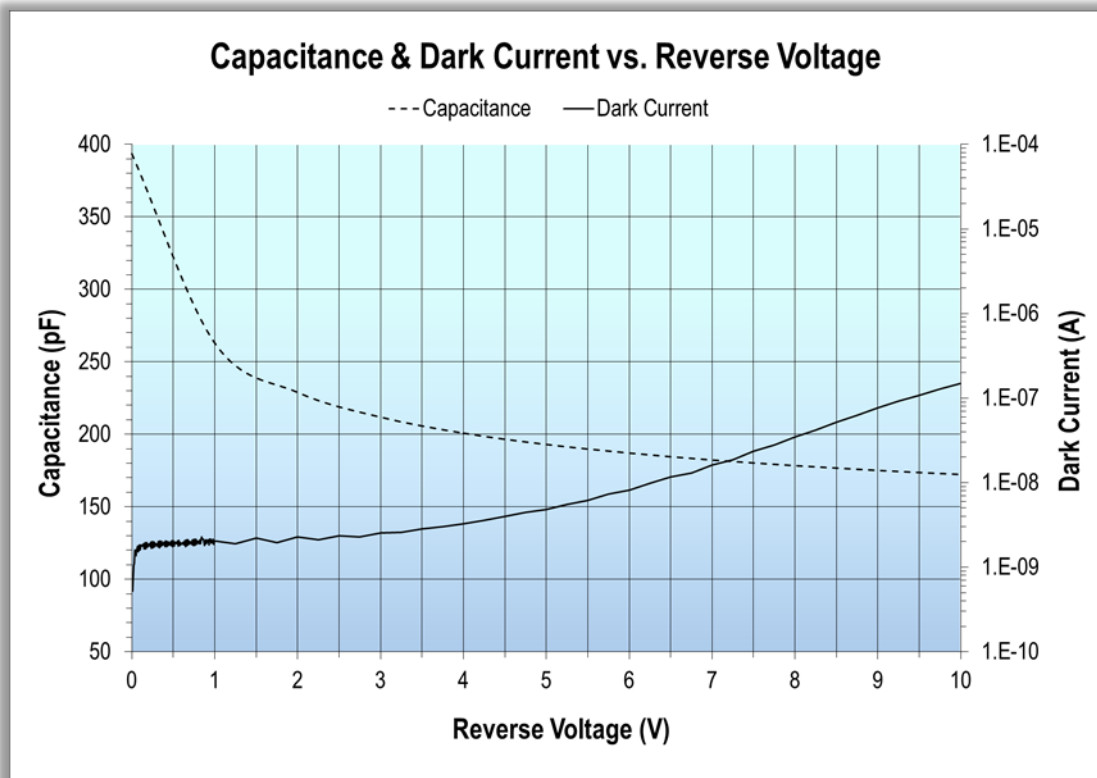
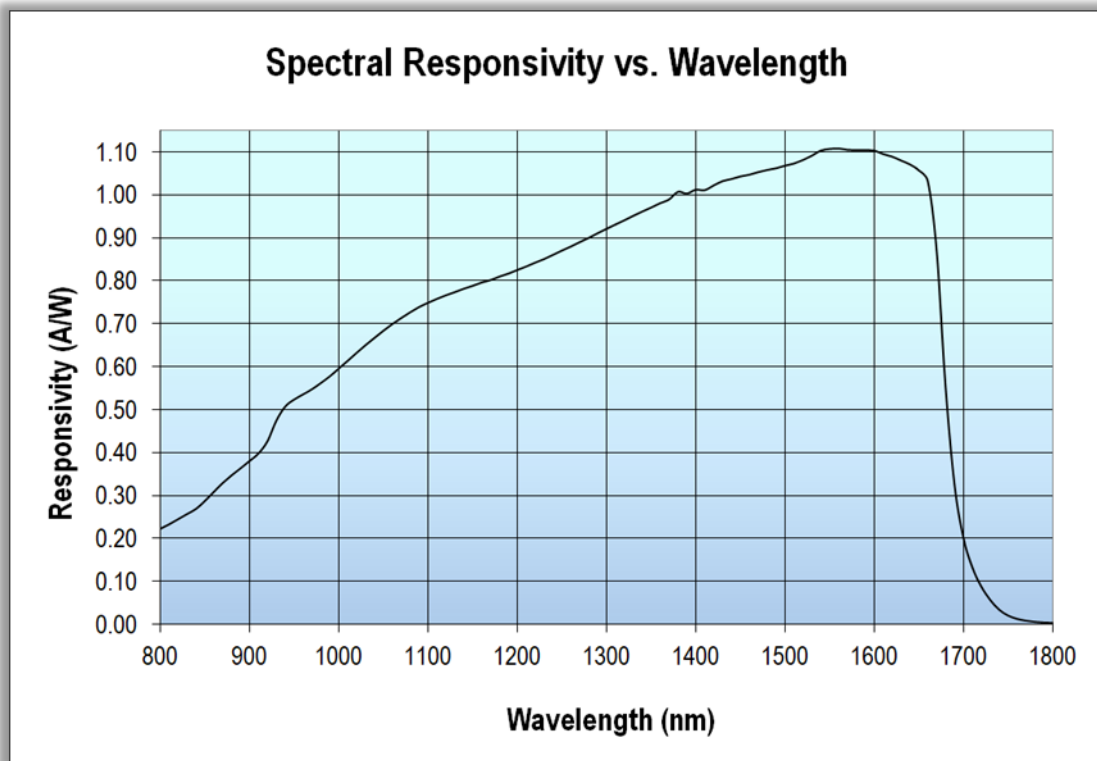
1. Other packaging and window/lens options are available.

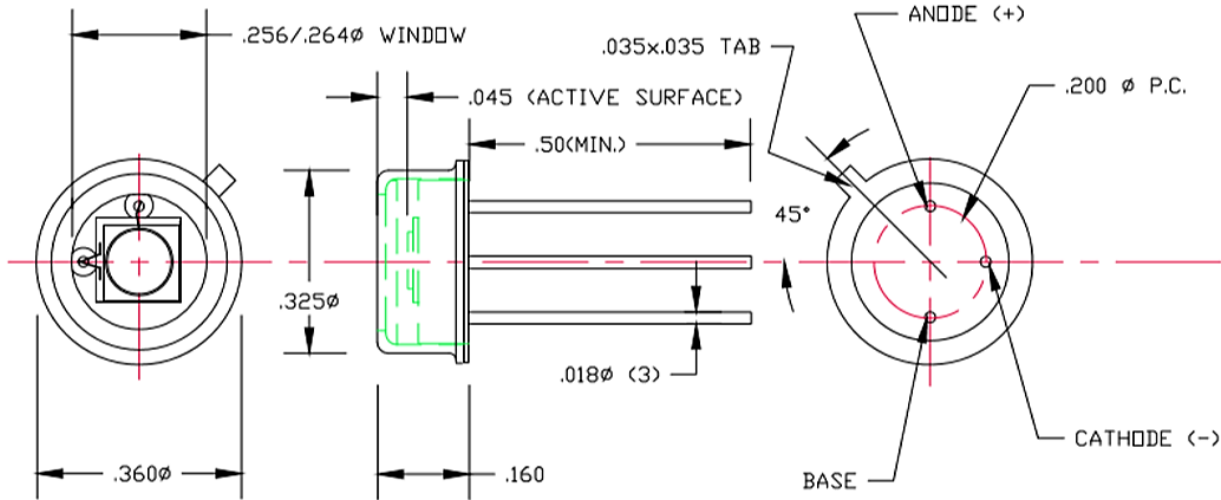
## Electro-Optical Characteristics

Parameter	Symbol	Min.	Typical	Max.	Units	Test Conditions (@ 23°C ± 2°C)
Responsivity	$R_{\lambda}$	0.23	0.30		A/W	$\lambda = 850 \text{ nm}$
Responsivity	$R_{\lambda}$	0.85	0.95		A/W	$\lambda = 1300 \text{ nm}$
Responsivity	$R_{\lambda}$	0.93	1.0		A/W	$\lambda = 1550 \text{ nm}$
Shunt Resistance	$R_{SH}$	6	12		MΩ	$V_R = 10 \text{ mV}$
Dark Current	$I_D$		3	20	nA	$V_R = 5 \text{ V}$
Capacitance	C		500	660	pF	$V_R = 0 \text{ V}$
Capacitance	C		200	400	pF	$V_R = 5 \text{ V}$
Bandwidth	BW		15		MHz	$R_{LOAD} = 50 \Omega, V_R = 5 \text{ V}$
Rise Time	$t_r$		22		ns	$R_{LOAD} = 50 \Omega, V_R = 5 \text{ V}$
Noise Equivalent Power	NEP		0.06		pW/√ Hz	$\lambda = 1550 \text{ nm}, V_R = 5 \text{ V}$
Power Linearity			+10		dBm	$V_R = 5 \text{ V}, \text{ tolerance} = \pm 0.2 \text{ dB}$

## Absolute Maximum Ratings

Parameter	Symbol	Min.	Max.	Units
Forward Current	$I_F$		10	mA
Reverse Current	$I_R$		10	mA
Reverse Voltage	$V_R$		20	V
Storage Temperature	$T_{ST}$	-40	125	°C
Operating Temperature	$T_{OP}$	-40	85	°C





TOLERANCES:

DIMENSIONS ARE IN INCHES

XX PLACE DEC.  $\pm .010$

XXX PLACE DEC.  $\pm .005$

ANGLES  $\pm 0.5^\circ$

**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, 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.

Specifications in this document may be updated without notice.