

## APX-QPD-InG-3.1 1100-1700nm Bandpass InGaAs Quadrant Photodiode



### FEATURES

- Hermetically sealed
- Silicon Window blocks light below 1100nm
- 0.03mm Element Gap
- Meets NASA Low Outgassing Standards

### APPLICATIONS

- Positioning
- Beam centering

### DESCRIPTION

The **APX-QPD-InG-3.1** is a 2mm diameter active area InGaAs quadrant photodetector mounted in a hermetic surface mount leadless chip carrier with an Anti-Reflective coated Silicon window sealed with low outgassing epoxy. The silicon window filters out wavelengths shorter than 1100nm, blocking visible and NIR light.

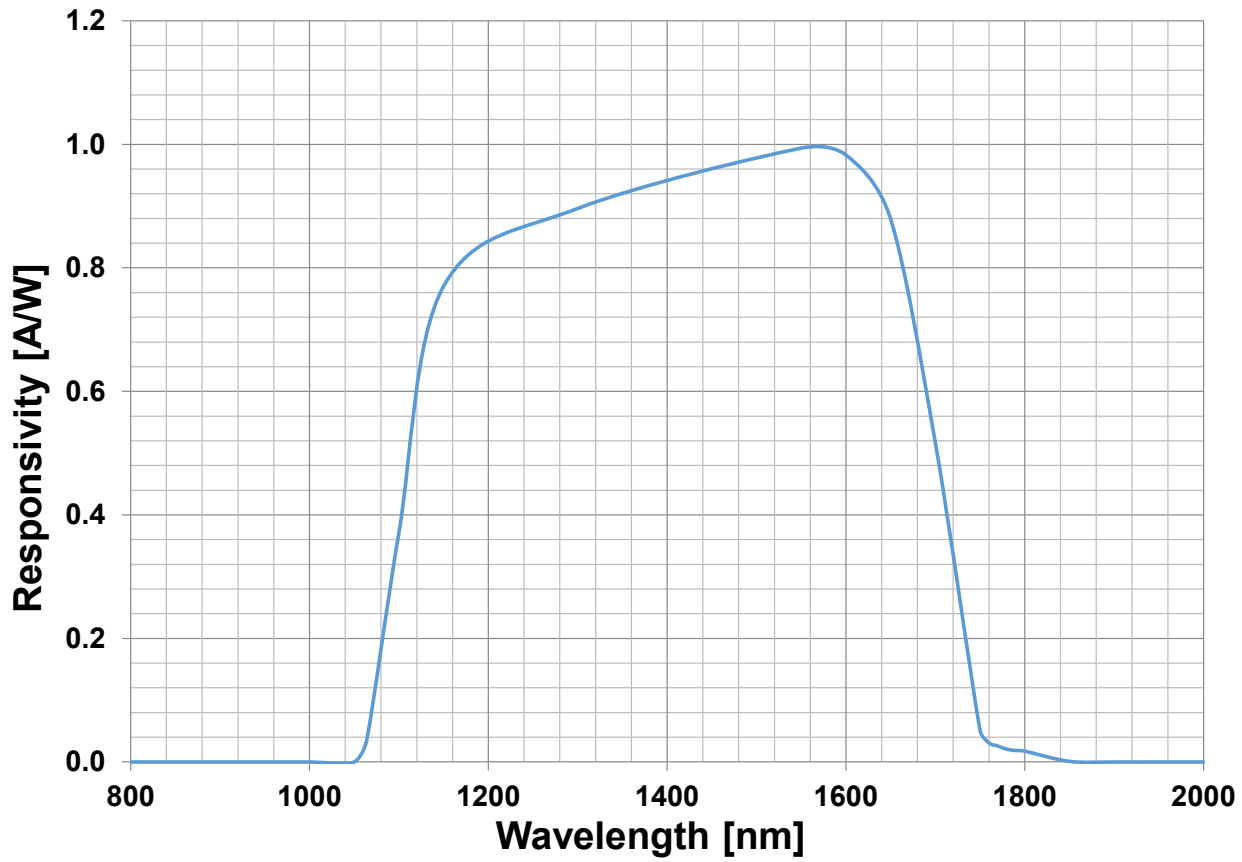
#### > Absolute Maximum Ratings

Part No.	Wavelength Range [nm]	Reverse Voltage [V]	Operating Temperature [C]	Storage Temperature [C]	Package
APX-QPD-InG-3.1	1100 to 1700	10	-40 to +75	-40 to +100	SMD

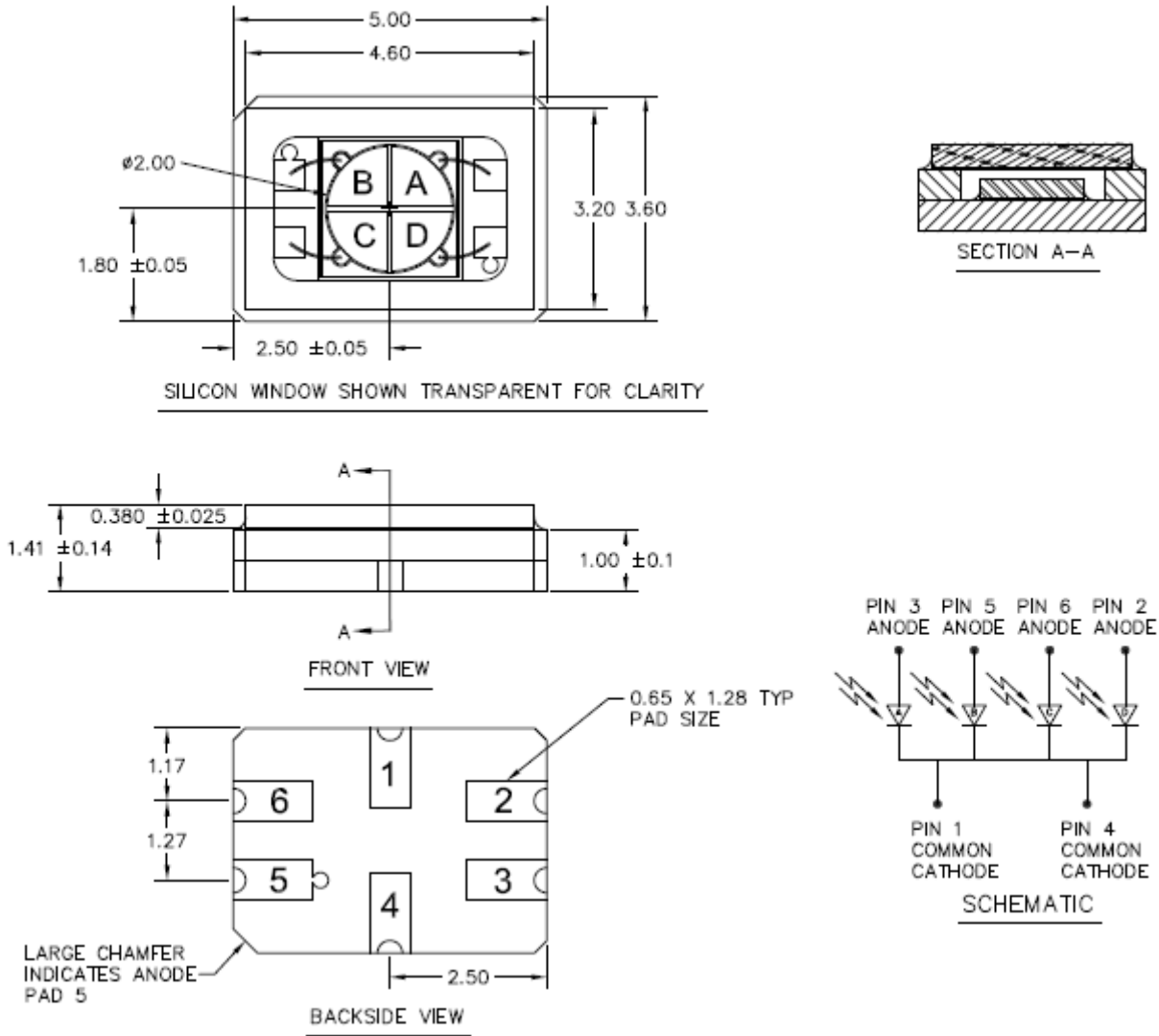
#### > Electrical and Optical Characteristics

Typical Characteristics per elements (T=23°C unless specified)						
Parameter	Test Conditions	Symbol	Min	Typical	Max	Unit
Active Area Diameter	Circular active area	A.A.	-	2	-	mm <sup>2</sup>
Element Gag	-	-	-	0.03	-	mm
Dark Current	V <sub>R</sub> = 5 V	I <sub>D</sub>	-	0.8	10	nA
Shunt Resistance	V <sub>R</sub> = 10 mV	R <sub>sh</sub>	40	100	-	MΩ
Junction Capacitance	V <sub>R</sub> = 0V; f = 1 MHz	C <sub>J</sub>	-	-	125	pF
Responsivity	λ = 1550nm, V <sub>R</sub> = 0 V	R	0.97	1	-	A/W
Breakdown Voltage	I = 10 μA	V <sub>BR</sub>	10	-	-	V
Element Crosstalk	V <sub>R</sub> = 1 V, λ = 1550nm	C <sub>L</sub>	-	-	2	%
Noise Equivalent Power	λ = 1550nm	NEP	-	2x10 <sup>-14</sup>	6x10 <sup>-14</sup>	W/Hz <sup>0.5</sup>

#### > Typical Spectral Response



> Package Dimensions in mm



> Soldering Conditions: 260°C for 3 seconds max.

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## **MATERIALS SAFETY**

*This product is free of conflict minerals and meets REACH compliance. Please see website for reports.*