Advanced Photonix
An OSI Optoelectronics Company

158-03-007

RoHS COMPLIANT

FEATURES

- High Inter-electrode resistance
- Low Noise
- High Shunt Resistance
- Low Capacitance
- High Sensitivity
- Detection in NIR and SWIR

DESCRIPTION

The 158-03-007 is a high sensitivity, low noise, 3mm diameter active area InGaAs photodiode (chip dimensions 3.375mm x 3.375mm) for position sensing applications at SWIR, NIR wavelengths range. The photodetector features 2 kΩ inter electrode resistance, anti-reflection coating of the cap window, and is assembled in a hermetically sealed TO package. The photodetector may also be packaged in an SMT package.

APPLICATIONS

- Industrial Sensing
- Security
- Communication
- Medical

> Absolute Maximum Ratings

Part No.	Wavelength Range [nm]	Reverse Voltage [V]	Operating Temperature [C]	Storage Temperature [C]	Package
159-03-007	400 to 1700	10	-40 to +125	-55 to +125	Window Cap

> Electrical and Optical Characteristics

Typical Characteristics (T=23°C unless specified)						
Parameter	**Test Conditions**	**Symbol**	**Min**	**Typical**	**Max**	**Unit**
Breakdown Voltage	I_{bias} = 1 μA	V_{BD}	-	9	-	V
Dark Current	V_{bias} = 1V	I_d	-	3	04	nA
Capacitance	V_{bias} = 0V; f = 1MHz	C_D	-	60	150	pF
	V_{bias} = 5V; f = 1MHz		-	40	100	
Responsivity	λ= 1550 nm		0.98	1.1	-	A/W
Shunt Resistance	V_{bias} = 10 mV	R_{sh}	5	20	-	MΩ
Spectral Range	-	-	400	-	1700	nm
Inter-Electrode Resistance	Between diagonally opposing contacts	-	-	3	-	kΩ

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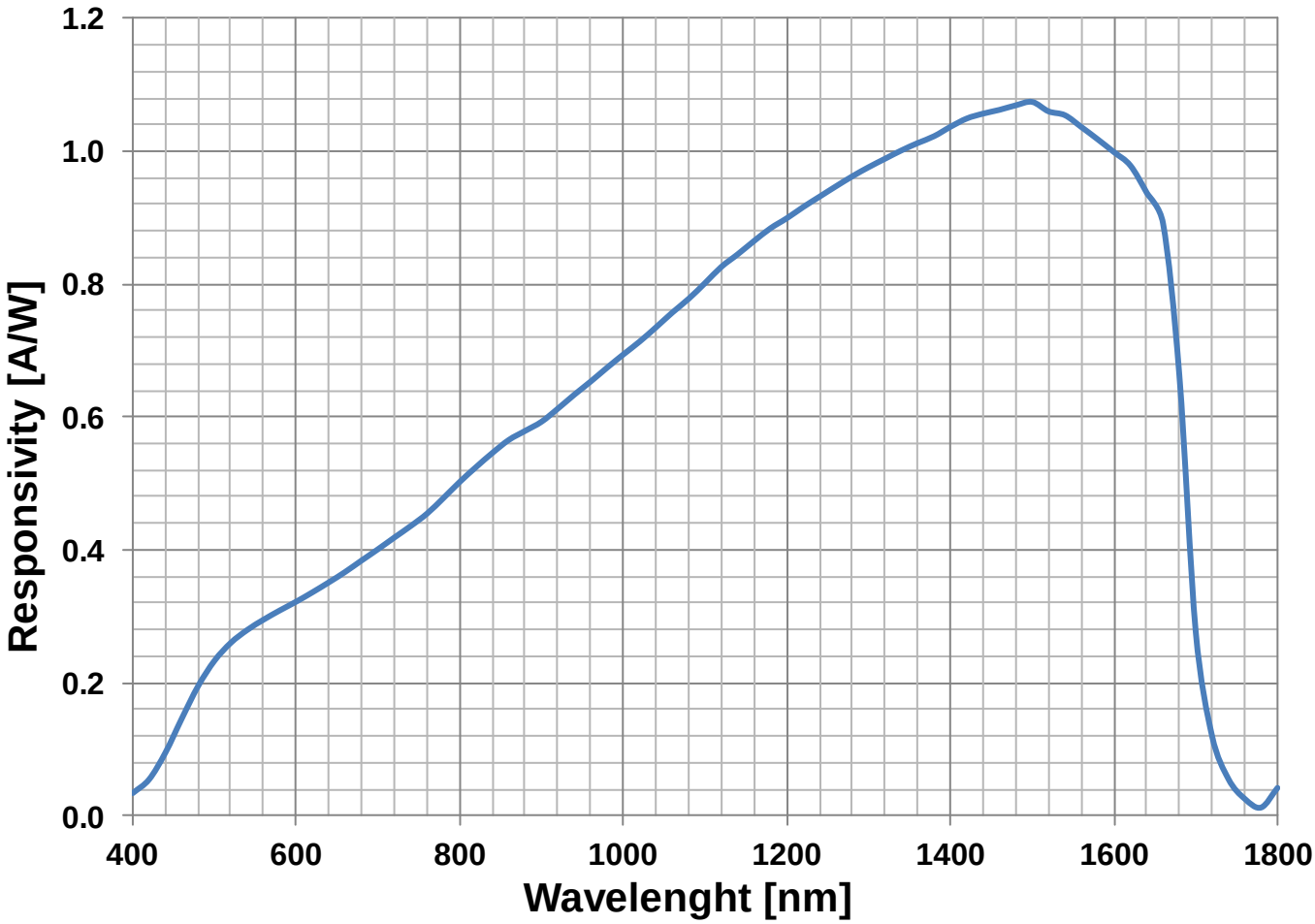
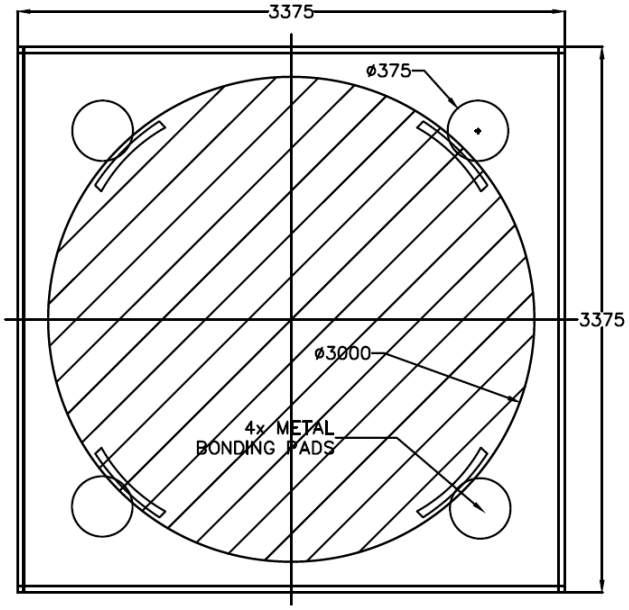
> Spectral Response



> Chip Dimensions [158-03-007]



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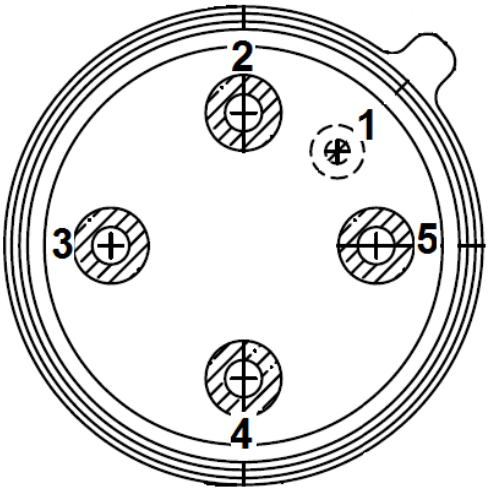
>Pin Out



Pin	
1	Cathode
2	Anode
3	Anode
4	Anode
5	Anode

>Soldering Conditions: 260˚C 1/16 inch away from case 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.

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