



## Large Area (3mm Diameter) InGaAs PhotoDiodes

PD-LD Inc. offers a variety of standard and custom large active area InGaAs PIN Photodiodes in fiber coupled packages, of proven manufacture and design. InGaAs is optimal from 1000 to 1650nm . All devices are RoHS-compliant and are available in fiber pigtailed co-axial packages or in connector style receptacle packages.

### Manufacturing

PD-LD Inc. maintains a large inventory of the most popular detector sizes and pin-outs. Efficient package designs and manufacturing processes allow PD-LD to rapidly support both small and large volume requirements. Complete 100% testing of all critical parametric device values ensure optimal performance and quality. Not all receptacle packaging styles are represented on this data sheet, so please contact PD-LD for specific needs.



### Features

- InGaAs PIN Photodiode
- 3mm Active Area

Performance Specifications: Examples, Other Options Available

170-10455-69 InGaAs PIN Photodiode TO-5 Package					
Parameter	Unit	Min.	Typical	Max	Test Conditions
Wavelength	nm	1000		1650	
Active Area	mm		3		
Responsivity	A/W	0.85	0.90		V <sub>r</sub> =3V 1550nm
Dark Current	nA		3.0	50	V <sub>r</sub> =3V, T <sub>c</sub> =25°C
Capacitance	pF		750	1800	V <sub>r</sub> =3V
Shunt Resistance	M Ohm	1	10		V <sub>r</sub> =10mV

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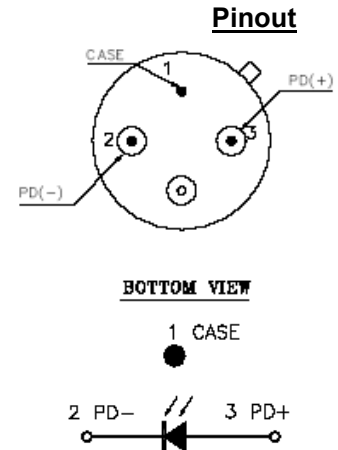
### Packaging Options

#### Pigtailing

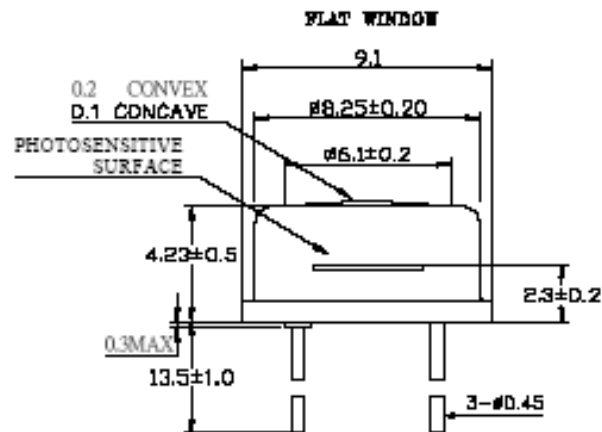
Devices can be pigtailed with any size optical fiber that is compatible with its active area size. Pigtails may range in core size from 3  $\mu\text{m}$  to 200 micron. One meter is the standard length, but any length or connector termination may be specified. Pigtails may be terminated with ST, FC, SC and LC connectors with either PC or APC polish.

#### Receptacles

Standard ST, FC and SC housings are available in both panel and board mountable versions. These receptacles can be optimized for use with both single mode and multimode optical fibers.



Pinout & Mechanical Dimensions (mm)



InGaAs Absolute Maximum Ratings (Tc=25°C)			
Parameter	Symbol	Value	Unit
Reverse Voltage	V <sub>R</sub>	5	V
Forward Current	I <sub>F</sub>	10	mA
Operating Temperature	T <sub>OPR</sub>	-40 to 85	°C
Storage Temperature	T <sub>STR</sub>	-40 to 85	°C
Input Optical Power	P	10	mW
Soldering Temperature		260/10	°C/sec