

500um Diameter General Purpose Silicon PhotoDiodes

PD-LD Inc. offers a 500um diameter photoconductive Silicon Photodiode suitable for applications requiring response times of up to 6nsec. The planar diffused device structure make them ideal for operation between 350nm and 1100nm including AC and pulsed applications. All devices are RoHS-compliant and are available in fiber pigtailed co-axial packages or in connector style receptacle packages.



Features

- 0.5mm diameter Active Area
- Silicon PIN Photodiode
- Available fiber pigtailed or receptacle mounted

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.

Performance Specifications: Examples (more options available)

PDSIE Series InGaAs PIN Photodiode					
Parameter	Unit	Min.	Typical	Max	Test Conditions
Wavelength	nm	350		1100	
Active Area	mm		0.5		
Responsivity	A/W	0.6			$V_r=10V$, 800nm to 1000nm
Dark Current	nA		.01	.15	$V_r=10V$, $T_c=25^\circ C$
Capacitance	pF		1		$V_r=10V$
Rise Time	nsec		6		$V_r=10V$, 50Ω
Bandwidth	MHz	80			$V_r=10V$

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Packaging Options

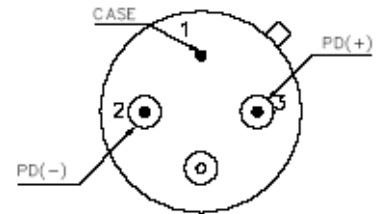
Pigtailing

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 μ 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.

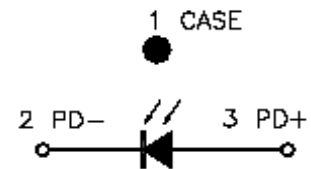
Receptacles

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.

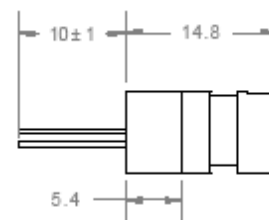
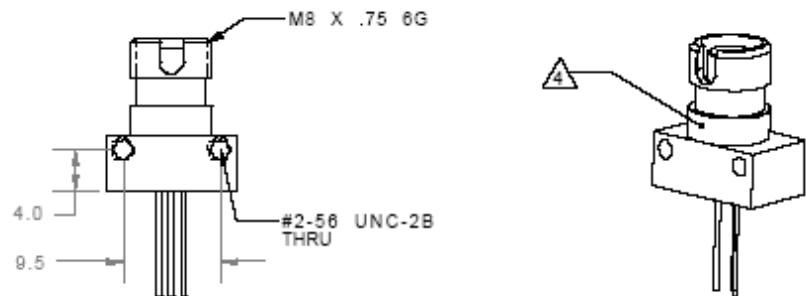
Pinout & Mechanical Dimensions (mm)



BOTTOM VIEW



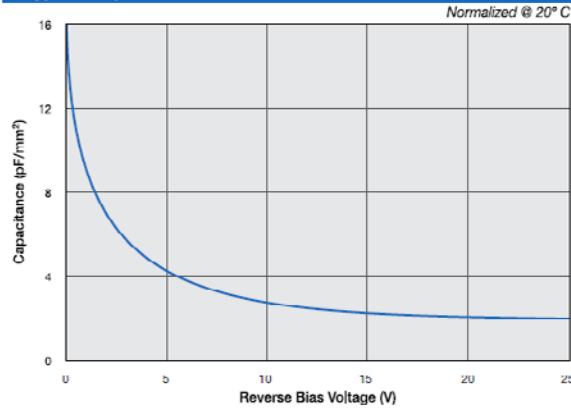
Mechanical Drawing FC Board Mountable Receptacle Panel Mount



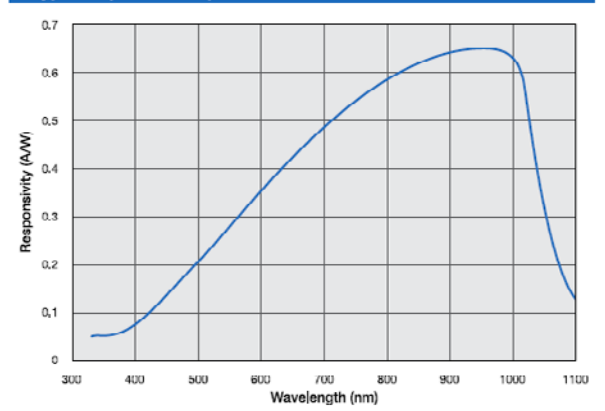
Silicon Absolute Maximum Ratings (T_c=25°C)

Parameter	Symbol	Value	Unit
Reverse Voltage	V _R	30	V
Operating Temperature	T _{OPR}	-40 to 100	°C
Storage Temperature	T _{STR}	-55 to 125	°C
Soldering Temperature		260/10	°C/sec

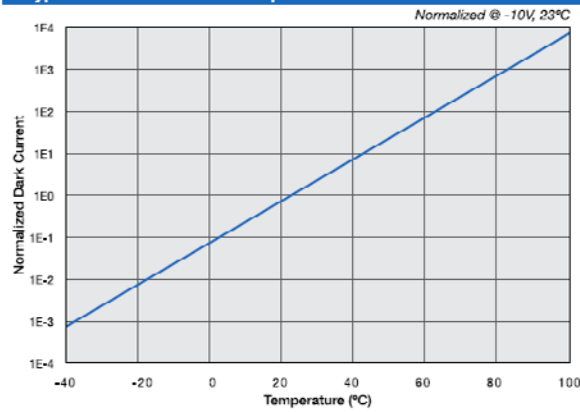
■ Typical Capacitance vs. Reverse Bias



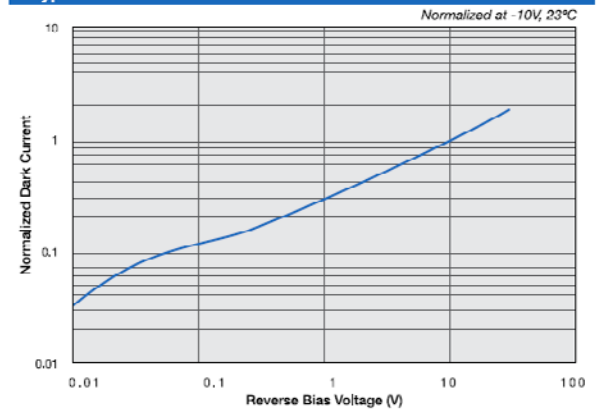
■ Typical Spectral Response



■ Typical Dark Current vs. Temperature



■ Typical Dark Current vs. Reverse Bias

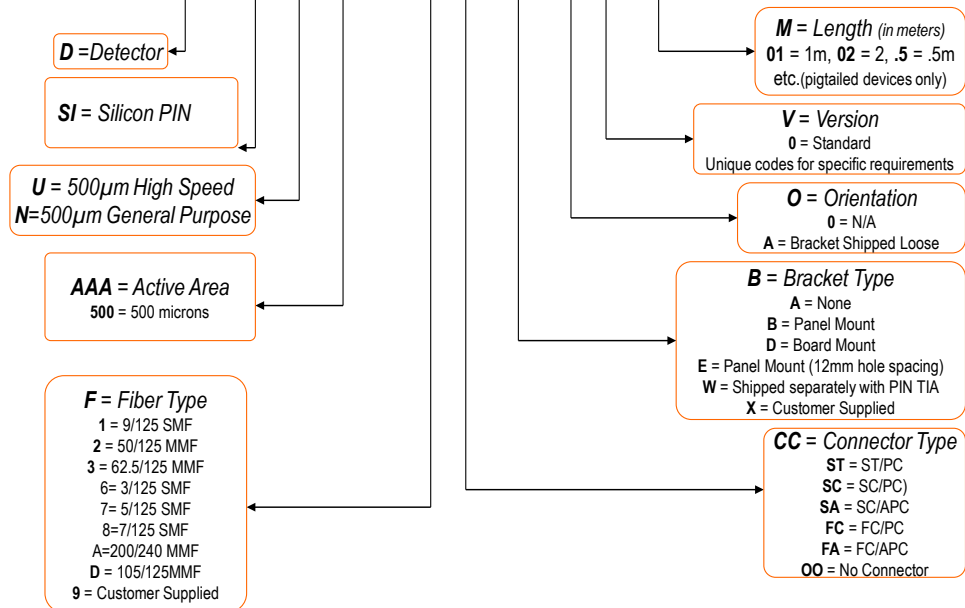


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Ordering Information

Data Legend: Pigtailed Silicon PIN Diodes

PD SI X AAA F CC B-O-V-M



Data Legend: Receptacle Silicon PIN Diodes

PD SI X AAA RRR F-O-V

