

Standard-Area Silicon PIN Photodiodes (500µm)

PD-LD Inc. offers a variety of standard and custom PIN Photodiodes and APDs in fiber coupled packages. The semiconductors offered are of proven manufacture and design. Our Silicon devices cover the optical spectrum from 400 to 1100nm, These devices are available in fiber pigtailed co-axial packages or in connector style receptacle packages.



Manufacturing

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

- 500 micron active area
- 400-1100nm optical range

Performance Specifics: Examples (more options available)

PD-LD Part Number	Active Area (µm)	Responsivity (A/W)		Capacitance Typ. Max	Dark Current Typ. Max		Bandwidth -3dB (MHz)	Pin-Out
		Min.	Typ.					
Silicon (@5V bias, 850nm Laser Source, 25°C)								
PDSIU500200A-0-0-01	500	0.35	0.45	2.5 -	0.1	1.0	600	T
PDSIU5003STD-D-0-01	500	0.35	0.45	2.5 -	0.1	1.0	600	T
PDSIU500FC13-W-0	500	0.35	0.45	2.5 -	0.1	1.0	600	T
PDSIU500ASMA-0-0-02	500	0.35	0.45	2.5 -	0.1	1.0	600	T
PDSIU500ST74-T-0	500	0.35	0.45	2.5 -	0.1	1.0	600	T
PDSIU500SMA-T-0	500	0.35	0.45	2.5 -	0.1	1.0	600	T

Absolute Maximums	
Operating Temperature	-40 to +85 °C
Storage Temperature	-40 to + 100 °C
Reverse Voltage	15V

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Packaging Options

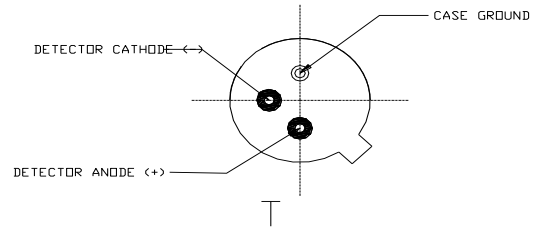
Pigtailing

Devices can be pigtailed with any size optical fiber that is compatible with its active area size. Pigtails may range in core size from 3µm to 100µm. 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.

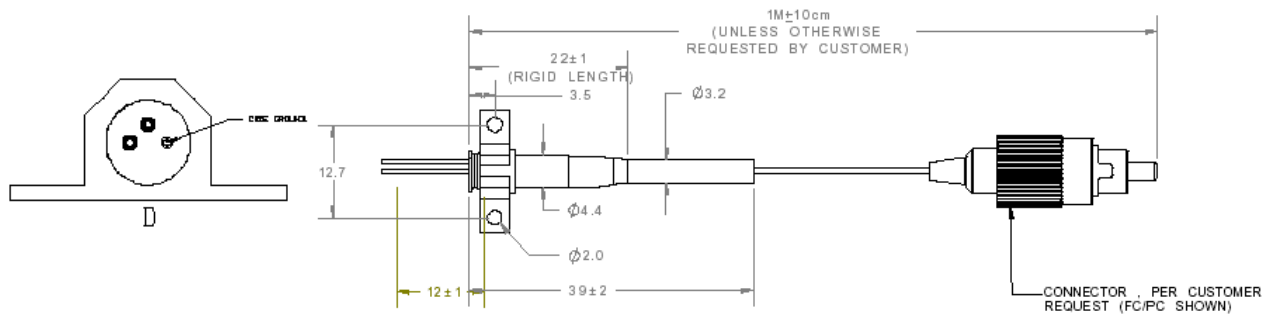
Receptacles

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)



PD-LD aligns then secures each TO-Packaged photodiode within a universal alignment sleeve. This assembly may then be incorporated into a connector receptacle assembly (FC, SC, ST, etc.) or into a fiber pigtailed assembly. Some examples of housings are listed here, but other packages are available upon request, including board mountable SC and FC styles. The standard pin-out rotation is to have the TO can tab at 1:00 when the assembly is viewed from the rear and the key slot is up (12:00).

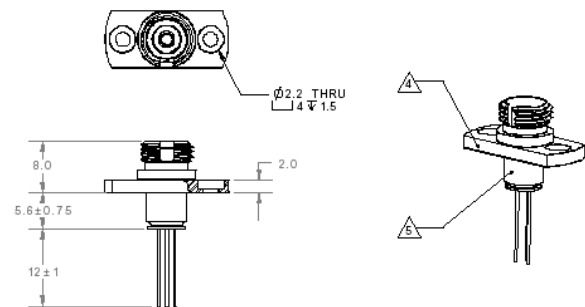


NOTES:

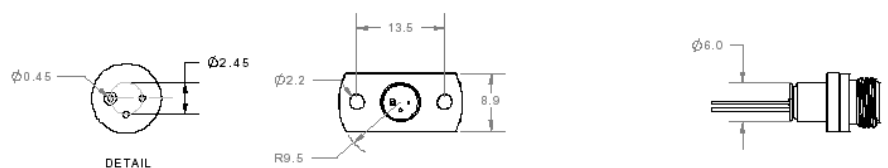
- 1 THESE DEVICES ARE ESD SENSITIVE. ESD PRECAUTIONS ARE ADVISED.
- 2 ALL DEVICES ARE SHIPPED WITH ESD LEAD PROTECTORS AND DUST COVERS.
- 3 ALL DEVICES WILL BE MARKED WITH A PD-LD SERIAL NUMBER.

▲ BRASS, NICKEL PLATED

▲ SS303



Mechanical Drawing for PDSIU500FC13-W-0

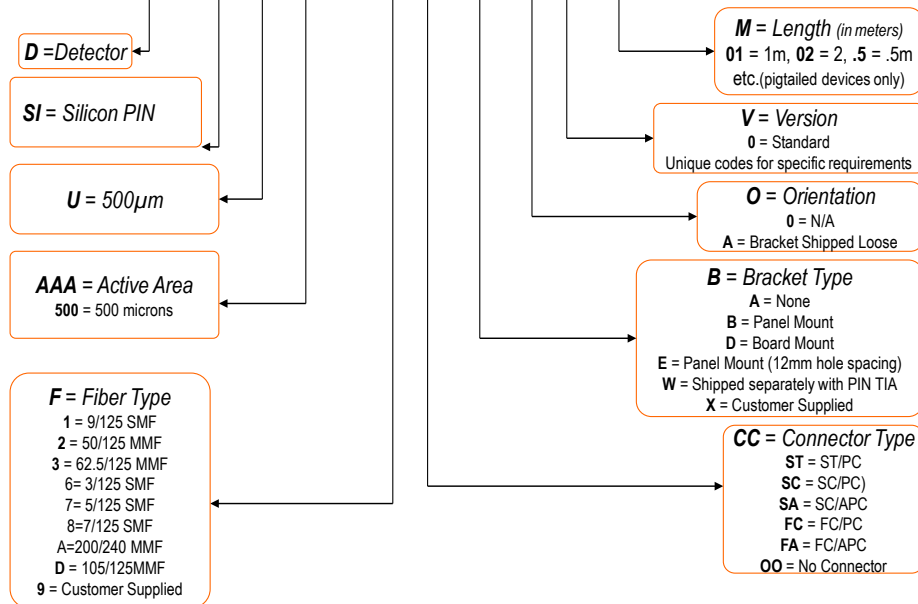


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Ordering Information

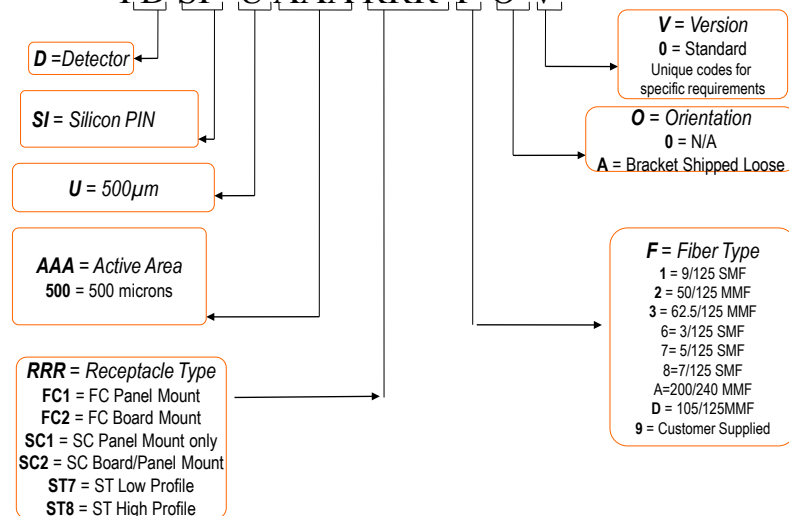
Data Legend: Pigtailed Silicon PIN Diodes

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



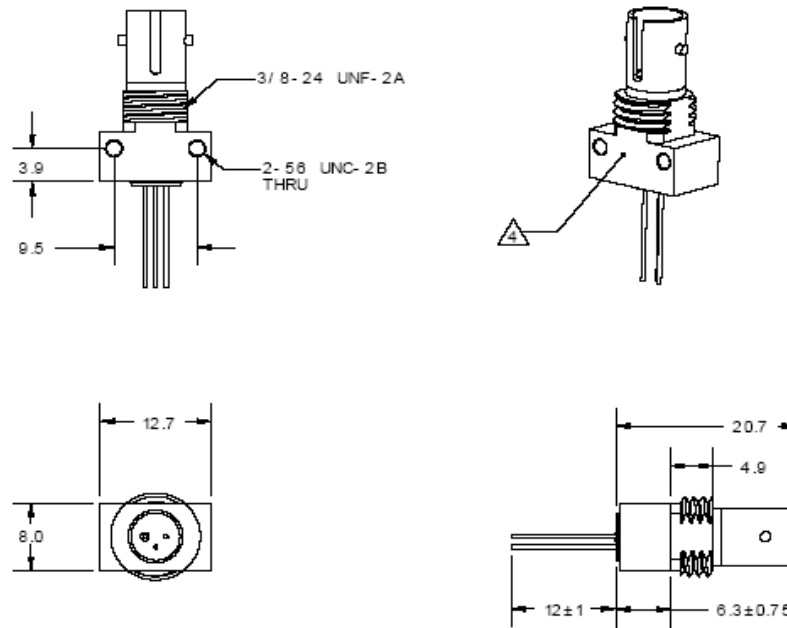
Data Legend: Receptacle Silicon PIN Diodes

PD SI U AAA RRR F-O-V

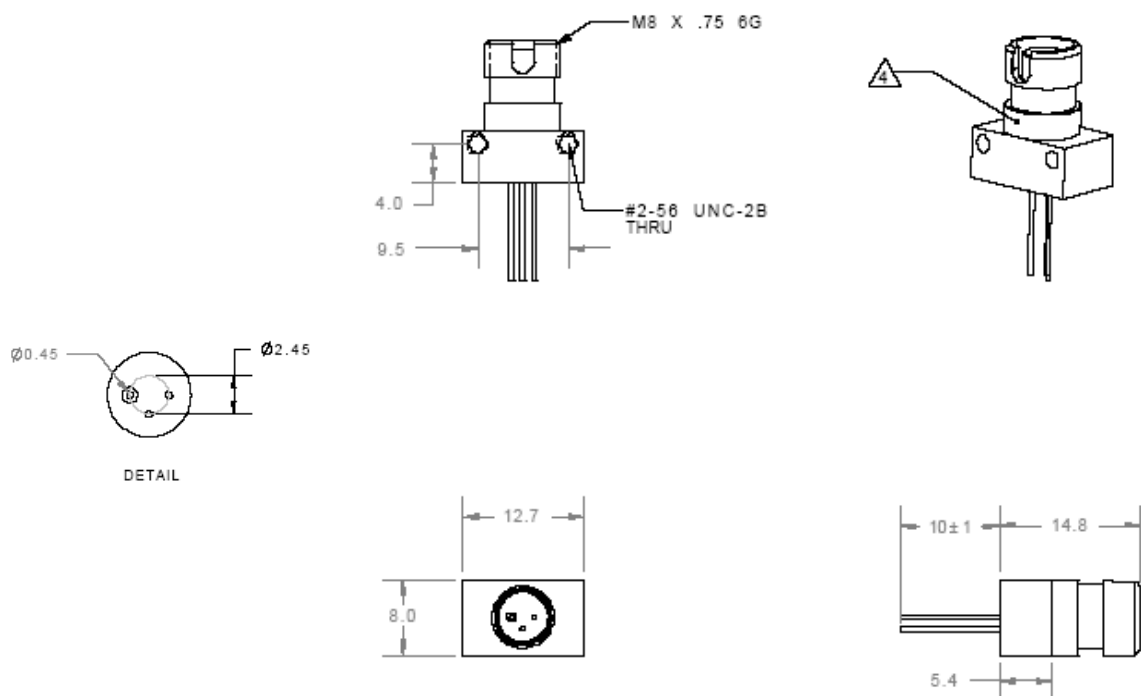


Silicon PIN Photodiodes (500µm)

Mechanical Drawing for PDSIU500ST74-W-0

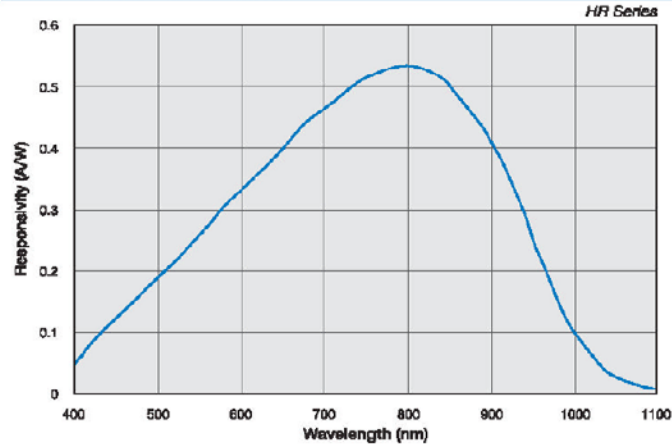


Mechanical Drawing for Board Mount FC Receptacle PDSIU500FC23-W-0

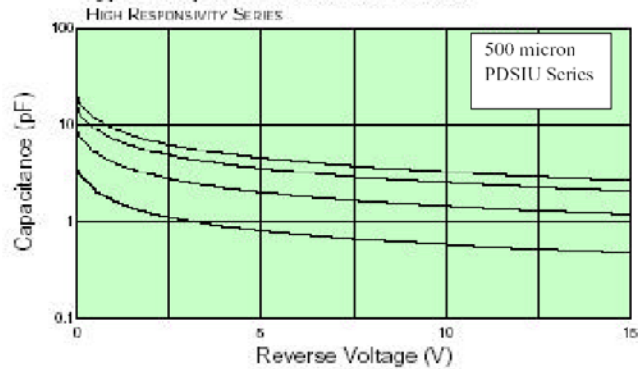


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■ Typical Spectral Response



Typical Capacitance vs Reverse Bias



Frequency Response vs Reverse Bias

