

PD-LD offers Germanium Photodiodes that are optimized for operation from the Near IR to IR region. These PIN photodiodes exhibit responsivity between 850nm and 1600nm. Our standard 1mm diameter active area devices are available in TO cans that are hermetically sealed and in a variety of fiber coupled packages. Other Germanium detectors with 0.1mm, 0.3 mm, 0.5 mm, 2 mm and 3 mm diameter active areas are available upon request.

These devices are designed for operation with low reverse bias where high shunt resistance is preferred, or with low capacitance for high bandwidth applications.

**Pigtailing**

Devices may be pigtailed with any size optical fiber that is compatible with its active area size. For our 1mm diameter devices pigtails may range in core sizes from 3um to 800 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



**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

**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.

PD-LD Part Number	Active Area Diameter (mm)	Dark Current Vr=Vtest uA		Test Reverse Bias (mV)	Max Reverse Voltage (V)	Capacitance At Vr max nF	Shunt Resistance (K Ohm) Vr=10mV		NEP (pW/ root Hz)	Cut-off Frequency at Vr at 50 Ohms (MHz)
		Typ	max				Min.	Typ		
PDGED1.0ST83-B-0	1.0	0.1	0.2	10	0.25	2	250	350	0.2	2

Detector Responsivity vs Wavelength (A/W)		
Wavelegh (nm)	Minimum	Typical
850	0.20	0.30
1300	0.6	0.65
1550	0.80	0.90

Absolute Maximums	
Operating Temperature	-20 to +60 °C
Storage Temperature	-55 to + 80 °C
Operating Current (0V)	0.1 mA
Reverse Voltage	1.0V

# PDGE1.0 Series 1.0 mm Diameter Germanium PIN Diodes

## Pinout & Mechanical Dimensions for high profile ST Receptacle (mm)

### 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.

