

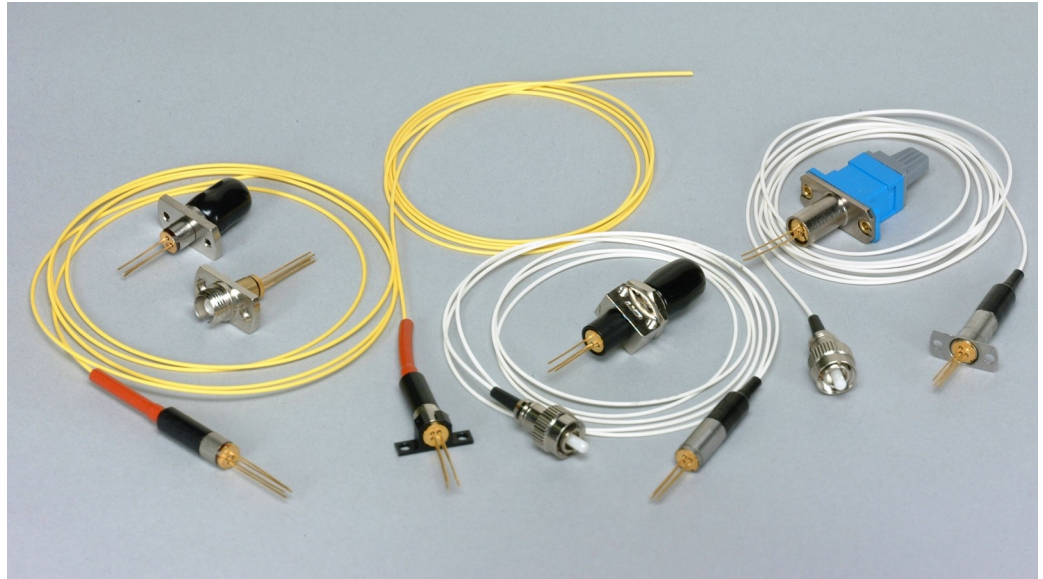
PD-LD Inc. offers a variety of packaging options for its' Fabry Perot Series of laser diodes. These units are available in ready-to-use, fiber-coupled packages, including FC, ST, and SC receptacles, as well as fiber-pigtailed units.

The InGaAsP MQW laser diodes offered by PD-LD are of proven design and manufacture; the standard wavelengths are centered at 1310 and 1550nm. Fiber-coupled CW (continuous-wavelength) output powers range from 0.1 - 2 mW, depending on the fiber type and desired performance level. Tracking error over OTR -40 to +85C is 1.5dB maximum .

Optional board or panel -mount flanges are available for pigtailed devices; contact PD-LD Sales for details. PD-LD Inc. will package non-standard lasers or parts specified by a customer using standard or custom receptacle or pigtailed techniques.

Both receptacle and pigtail packages are made using an active micro-positioning system and proven packaging techniques. Reliable and efficient devices are produced.

PD-LD offers two popular pin-outs for FP lasers to address various existing PCB layouts.



Features

- Internal Monitor Photo-detector
- Compact, reliable receptacle & coax fiber-coupled package
- 0.1 - 2.0 mW singlemode (9/125)
- 1.7nm RMS Spectral Width
- 1.5 GHz Bandwidth

Applications

- Fiberoptic communications systems
- Fiberoptic test instrumentation

Performance Specifications

PD-LD Part No. ¹	Wavelength (nm)			Min. Fiber Coupled Power (mW)	Pin-out	Threshold Current (mA)		Operating Current (mA)		Monitor PD Current (mA)	
	Min.	Typ.	Max.			Typ.	Max.	Typ.	Max.	Min.	Typ.
Continuous Wavelength InGaAsP MQWLasers @ 25C Tested with 62.5/125um MMF											
PL13AS001FC23-S-0	1290	1310	1330	1.0 mW FC Receptacle	"T"	10	20	20	35	InGaAs	0.1 0.8

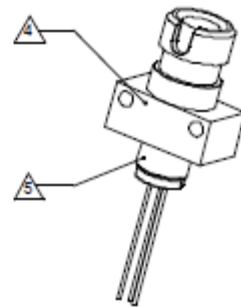
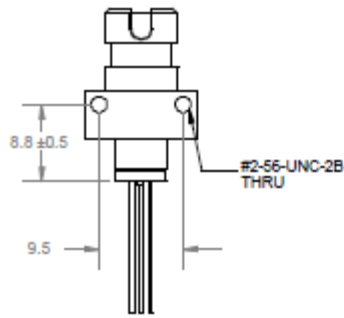
¹Examples only; most device/packaging combinations available. Changes to specifications may be made without notice. 07-16PL13AS FC. Rev.A

Physical Dimensions (mm) & Pin Connection

“T” Pin-Out

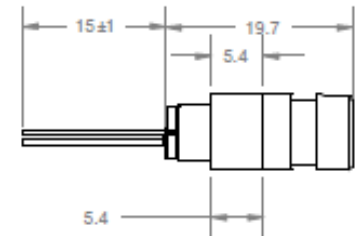
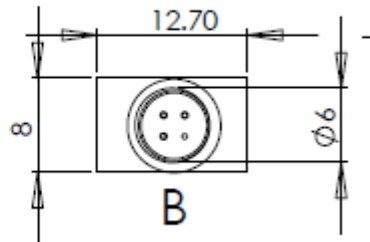
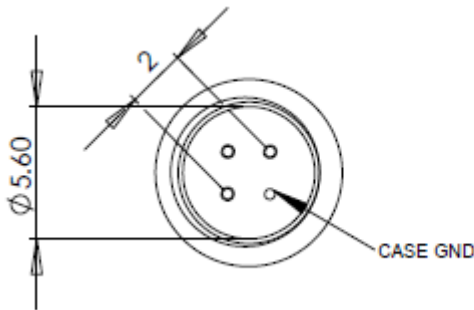


Pin	Description
1	Case
2	LD-
3	PD+
4	LD+/PD-



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.



Ordering Information

Lasers Pigtailed

PLWWPPPFCCB-0-V-LL

L = Laser
WWW=Wavelength and Pin-out

1310nm:13B,13P,13AM
1550nm:15B, 15P

Laser Receptacle

PLWWPPPRRRF-O-V

PPP = Fiber-Coupled Power

.1 = 0.10 mW (100 μW) 001 = 1.0 mW
0.2 = 0.20 mW (200 μW) 1.6 = 1.6mW
0.5 = 0.5 mW (500 μW) 002 = 2.0 mW

F = Fiber Type

- 1 = 9/125 SMF
- 2 = 50/125 MMF
- 3 = 62.5/125 MMF
- 4 = 100/140 MMF
- 9 = Customer Supplied

B = Bracket Type

- A = None
- B = Panel Mount
- C = Board Mount
- G = Board Mount

RRR=Receptacle Type

- FC1=FC Panel mount
- FC2=FC Board mount
- SC1=SC Panel mount only
- SC2=SCPanel/board mount
- ST7=ST low profile
- ST8=ST high profile

O=Orientation

- 0=N/A
 - A=Bracket Shipped Loose (pigtailed unit)
- Specify orientation as required

V=Version

- 0=Standard
- Unique Codes for specific requirements

LL = Length in meters (01,02,0.5 ect.) (pigtailed devices only)

CC = Connector Type (pigtailed devices only)

ST = ST/PC SC = SCPC SA=SC/APC FC = FC/PC FA = FC/APC FU = FC/UPC OO = No Connector

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Absolute Maximum Ratings

Parameter	Symbol	Typ	Unit
Storage Temperature	T_{ST}	-40~+85	°C
Operating Temperature	T_{OP}	-40~+85	°C
PD Forward Current (PD)	$I_{(PD)}$	1	mA
PD Reverse Voltage (PD)	$V_{R(PD)}$	10	V
LD Reverse Voltage (LD)	$V_{R(LD)}$	2	V

Characteristics at 25C tested with 62.5/125um MMF terminated with FC/PC connector

Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Output Optical Power	P_O	1.0	1.5		mW	$I = I_{th} + 20 \text{ mA}$
Threshold Current	I_{th}		10	20	mA	
Supply Voltage	V_{OP}		1.2	1.7	V	$I = I_{th} + 20 \text{ mA}$
Center Wavelength	λ	1290	1310	1330	nm	$I = I_{th} + 20 \text{ mA}$
Spectral Width (RMS)	$\Delta\lambda$		2	5	nm	
Rise and Fall Time (20%~80%)	T_R/T_F			0.5/0.5	ns	$I = I_{th} + 20 \text{ mA}$
Monitor Current	I_M	25	100	500	μA	$I = I_{th} + 20 \text{ mA}$
PD Dark Current	I_D			0.1	μA	$V_{RP} = 5V$

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