

PD-LD Inc. offers its DFB Series of coaxial style laser diodes with integral single stage optical isolators. The addition of these isolators ensures a minimum optical isolation of 33dB at either 1310 or 1550nm at 25°C. Optical isolation is temperature dependent and is specified as 20dB minimum over the entire operating temperature range of -40 to +85°C. These units are available in ready-to-use, fiber-pigtailed packages and are available with FC, SC and LC style optical connectors.

The InGaAsP DFB 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 desired performance level. The highly stable YAG Laser welded packaging ensures a low tracking error of 1.0 dB maximum over OTR -40 to +85C.

Optional board- or panel-mount flanges are available for pigtailed devices; contact PD-LD Sales.



Features

- Internal Monitor Photodetector
- Compact, reliable, coax fiber-coupled package
- 0.1 - 2.0 mW singlemode (9/125)
- 30dB minimum side mode suppression
- 0.2nsec typical rise/fall time

Applications

- Fiberoptic communications
- Fiberoptic test instrumentation
- Analog Signal transmission

PD-LD Part No. ¹	Wavelength (nm)			Min. Fiber Coupled Power (mW)	Threshold Current (mA)		Operating Current (mA)		Monitor PD Current (mA)	
	Min.	Typ.	Max.		Typ.	Max.	Typ.	Max.	Min.	Typ.
Continuous Wavelength InGaAsP Lasers @ 25C										
PL13U001100B-R-0-01	1290	1310	1330	1 mW	6	20	18	40	InGaAs 0.1 0.8	
PL13U0.51FAA-0-0-01	1290	1310	1330	0.5mW FC/APC	6	20	18	40	InGaAs 0.1 0.8	
PL13U0011SAA-0-0-01	1295	1310	1325	1 mW SC/APC	6	20	18	40	InGaAs 0.1 0.8	
PL15M0011SAA-0-0-01	1530	1550	1570	1 mW SC/APC	10	30	30	60	InGaAs 0.1 0.8	
PL15M0.51FAC-R-0-01	1530	1550	1570	0.5 mW FC/APC	10	30	30	60	InGaAs 0.1 0.8	
PL15M001FAG-R-0-01	1530	1550	1570	1 mW FC/APC	10	30	30	60	InGaAs 0.1 0.8	

Parameter	Condition	Min	Typ	Max	Unit
Optical Isolation	Temp.= +25°C	30	45	—	dB
	Temp.= -40~+85°C	20	—	—	

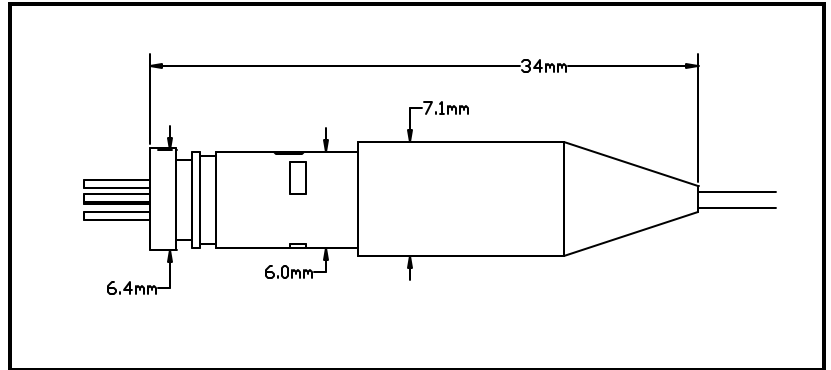
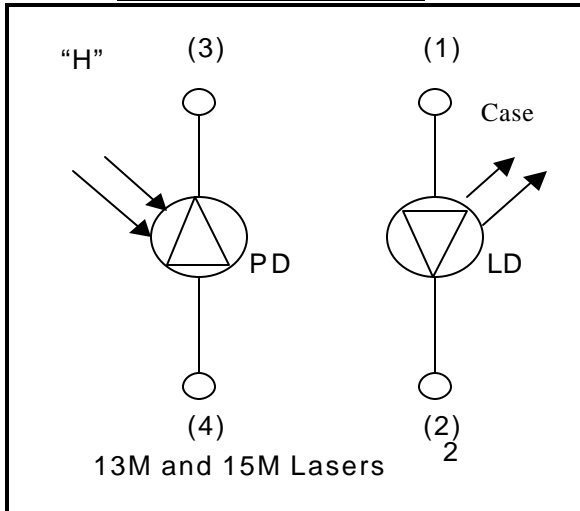
¹Examples only; most device/package combinations available. Changes to specifications may be made without notice. 03-02 Isolated DFB. Rev.1

PL13/15 Isolated DFB Series

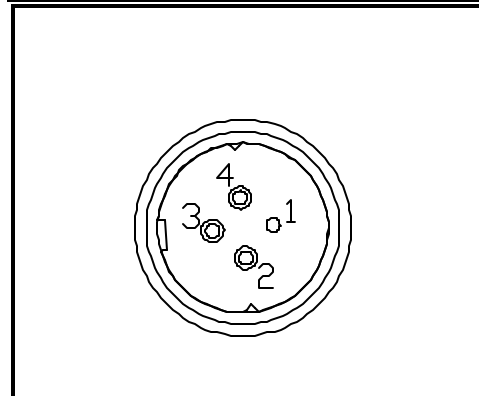
Laser Diodes for Fiber Optics

Physical Dimensions (mm) & Pin Connection

Laser Diode Schematic



Laser Diode Lead Orientation



Coaxial-Pigtailed Laser Diode Package

Consult PD-LD for Available Board Mount (10181 or 10198) or Panel Mount Brackets (10219)

Ordering Information

Lasers - Pigtailed

PLWWWPPPFCCB-0-I-LL

L = Laser

WWW=Wavelength and Pin-out

1310nm=13M

1550nm=15M

PPP = Fiber-Coupled Power

0.1 = 0.10 mW (100 μ W)

0.8 = 0.8 mW (800 μ W)

0.2 = 0.20 mW (200 μ W)

001 = 1.0 mW

0.5 = 0.5 mW (500 μ W)

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

O=Orientation

0=None

A=Bracket Shipped Loose (pigtailed units only)

Specify orientation as required

I=Single Stage Optical Isolator

LL = Length in meters (01,02,0.5 etc.) (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 = None

PL13/15 Isolated DFB Series

Laser Diodes for Fiber Optics

Optical Characteristics for 1550nm DFB Lasers

