



## PL13/15 Isolated DFB Series Laser Diodes

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 available in standard wavelengths 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 .



### Features

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

### Applications

- Fiberoptic communications
- Fiberoptic test instrumentation
- Analog Signal transmission

### Performance Specifications: Typical Product Configurations (more options available)

PD-LD Part No. <sup>1</sup>	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-I-01	1290	<b>1310</b>	1330	1 mW	6	20	18	40	InGaAs	0.1 0.8
PL13N0.51FAA-0-I-01	1290	<b>1310</b>	1330	0.5mW FC/APC	6	20	18	40	InGaAs	0.1 0.8
PL13U0011SAA-0-I-01	1295	<b>1310</b>	1325	1 mW SC/APC	6	20	18	40	InGaAs	0.1 0.8
PL15M0011FAA-0-I-01	1530	<b>1550</b>	1570	1mW FC/APC	10	30	30	60	InGaAs	0.1 -
PL15N0.51FAC-R-I-01	1530	<b>1550</b>	1570	0.5 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	—	—	

<sup>1</sup>Examples only; most device/packaging combinations available.

Changes to specifications may be made without notice.

2-11 Isolated DFB. Rev.2

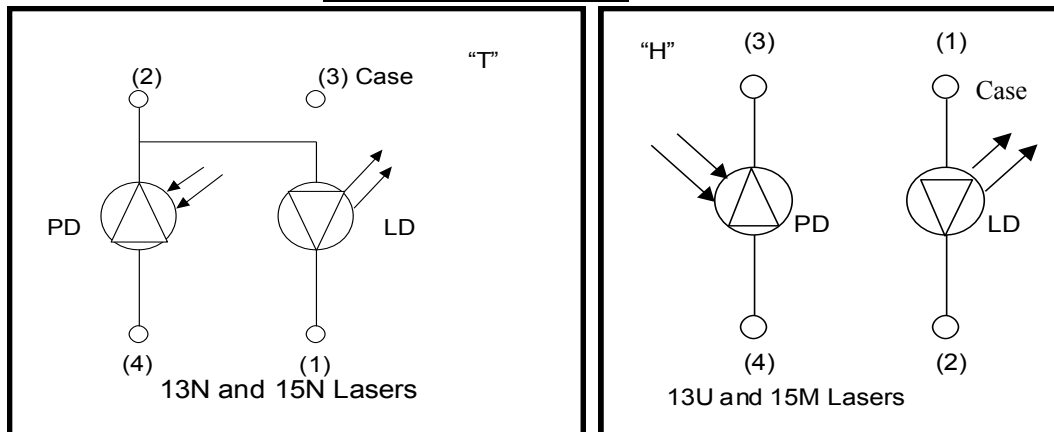


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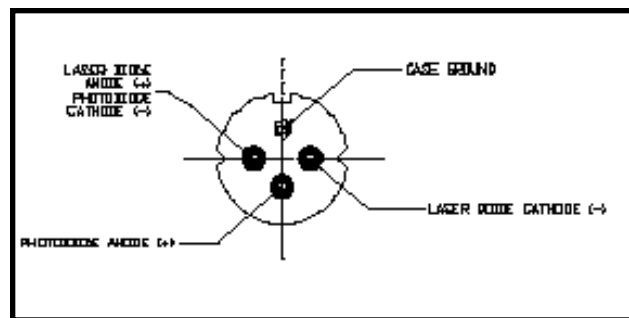
### Packaging Options:

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

#### Laser Diode Schematic

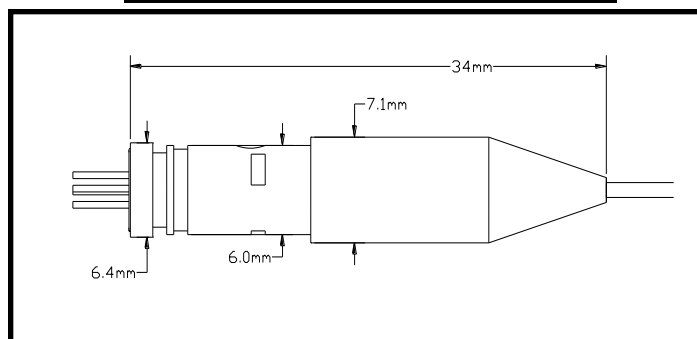


#### Laser Diode Lead Orientation for "15AA"



#### Coaxial-Pigtailed Laser Diode Package

Consult PD-LD for Available Board Mount (10181 or



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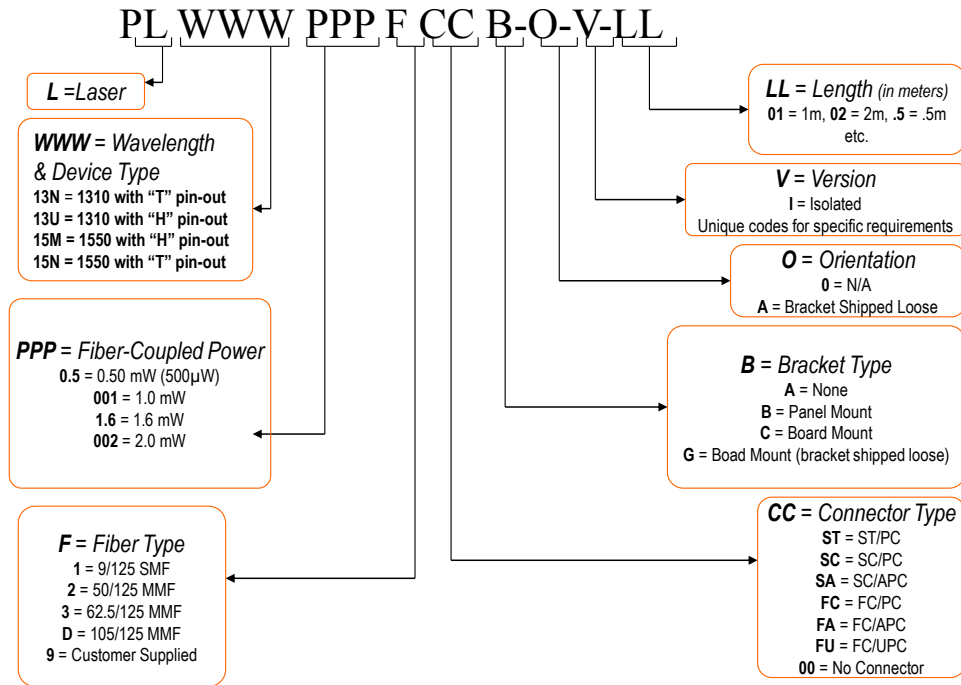
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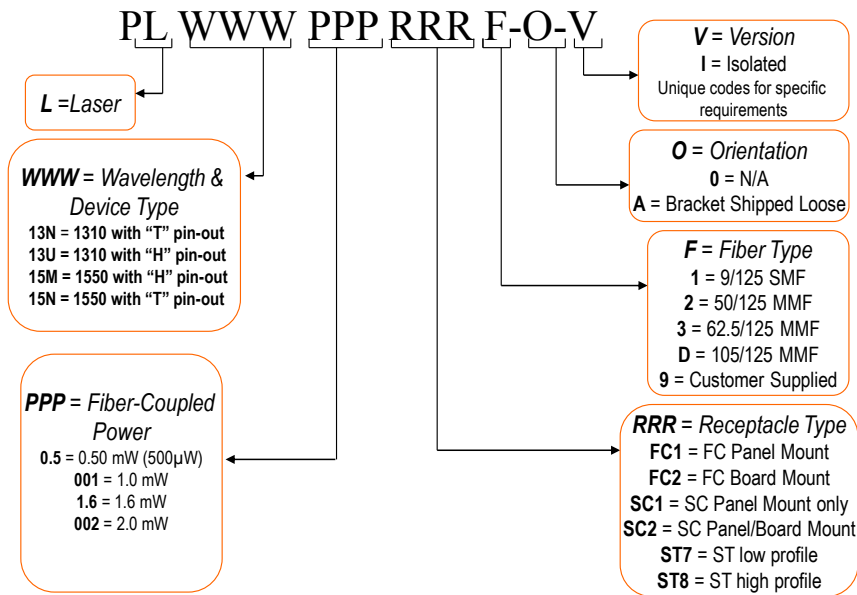


## PL13/15 Isolated DFB Series Laser Diodes

### Data Legend: Pigtailed Isolated DFB Lasers



### Data Legend: Receptacle Isolated DFB Laser Diodes



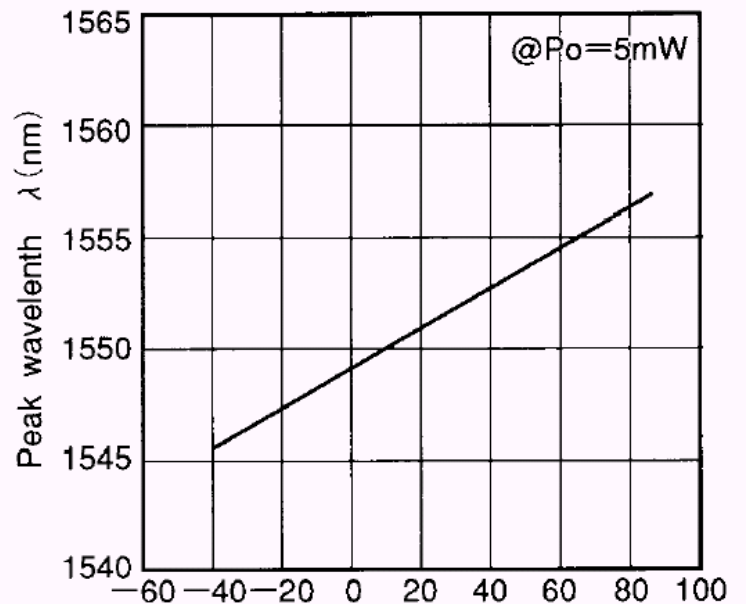
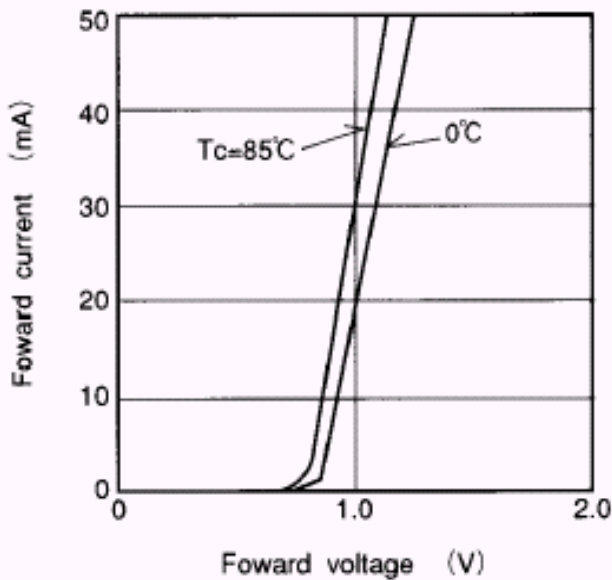
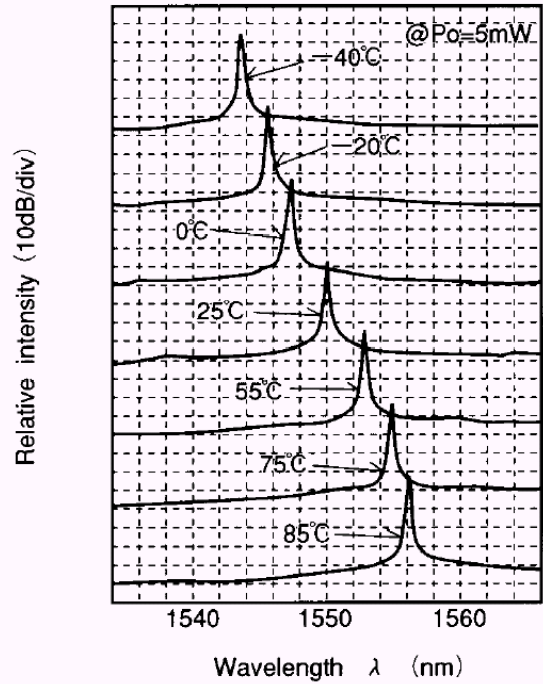
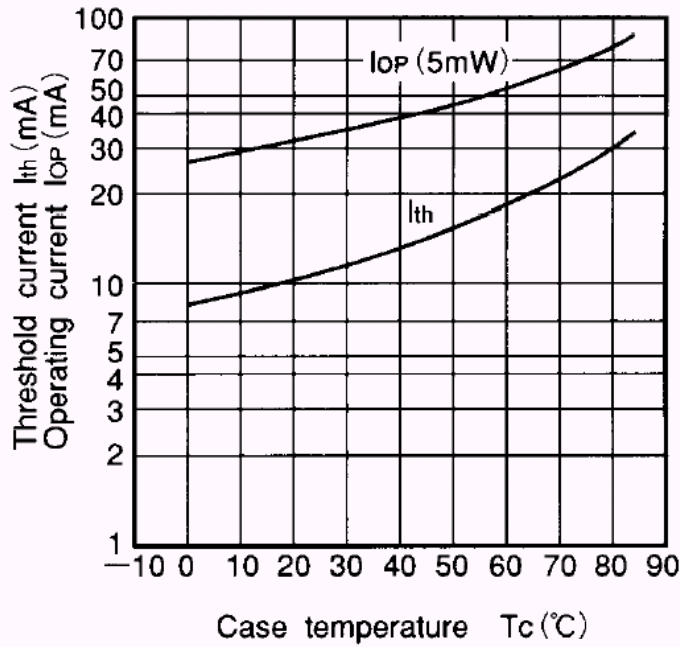
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## Optical Characteristics for 1550nm DFB Lasers



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