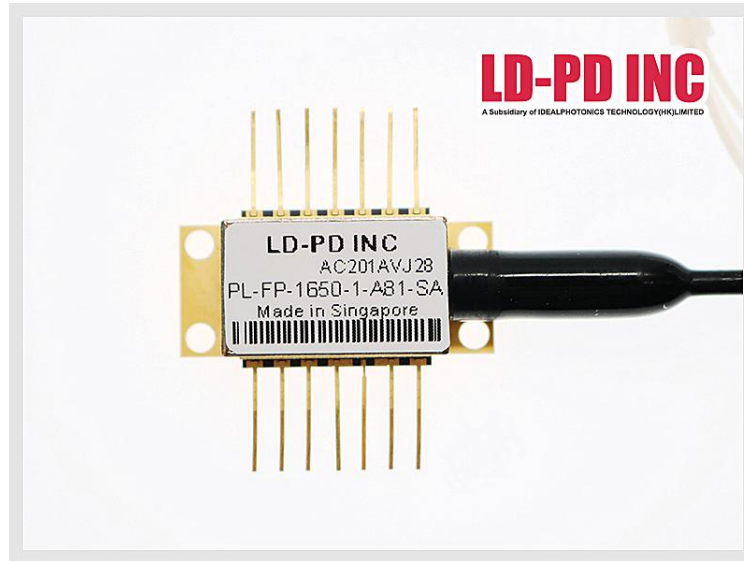


1650nm FP Single-Mode 14-Pin Butterfly Module Laser Diodes



Description

The PL-FP-1650-1-A81-SA High brightness, high quality, and high reliability are the foundation of our single mode product line. LD-PD's 1650nm single mode laser modules are available with up to 70mW of continuous output power from a 14-pin butterfly packaged fiber. All chips are mounted on a 2.1mm COS within the package and come standard with an internal thermistor, TEC, and photodiode. LD-PD's trademark laser chip design offers un-measurable degradation and long lifetimes that make our chips among the most reliable in the industry today. Our 1650nm single mode line serves a broad range of applications including optical data storage, printing, laser ranging, illumination, defense, spectral analysis, and graphics.

Features

- Optical output: 200mW
- FC-APC connector
- Efficient coupling into single mode fiber
- 14-pin butterfly package
- CW or pulsed operation
- Internal monitor PD and TEC
- SM or PM Fiber (ø0.9mm)

Application

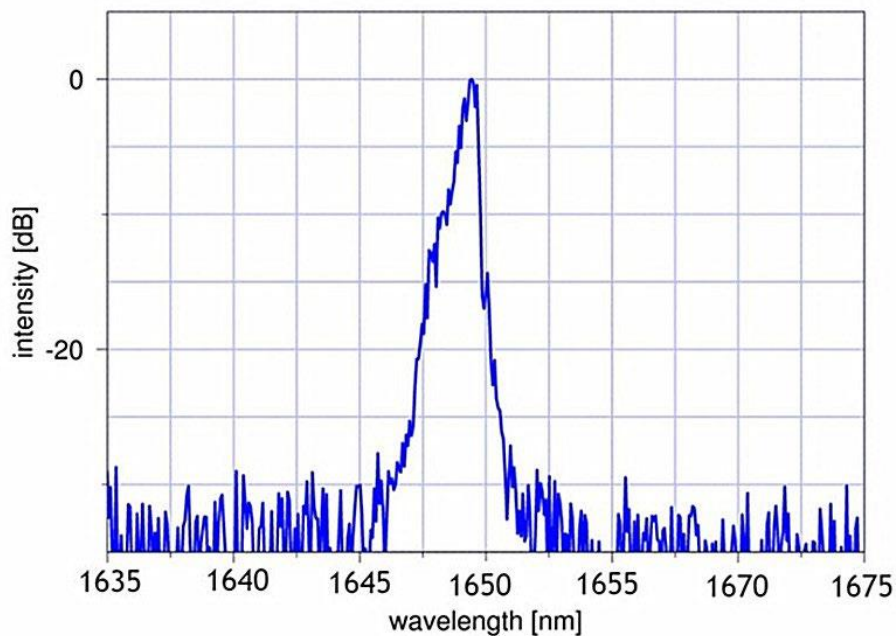
- Printing
- Optical Data Storage
- Spectral Analysis
- Graphics
- Laser Ranging
- Illumination
- Defense

Laser Specifications

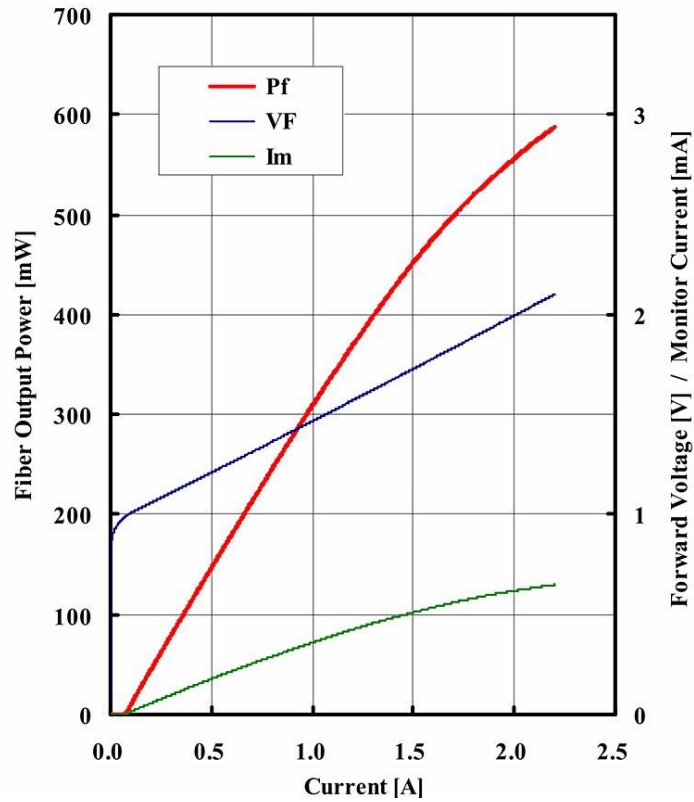
Electrical/Optical Characteristics(Tsub=25°C, CW bias unless stated otherwise)

Parameter	Symbol	Min	Typ	Max	Unit
Centre Wavelength	λ	1630	1650	1670	nm
Spectral Width	SMSR	1	3	6	nm
Threshold Current	I _{th}		80	100	mA
Operating Current	I _{op}		1000	1200	mA
Fiber output Power	P _f	100	200	500	mW
PD Dark Current (VRD=5V)	I _d			0.1	uA
Extinction Ratio (PM VERSION)	PER	17	20		dB
Coupled Fiber Type	SMF-28E				
Forward Voltage	V _f		1.8	2.5	V
Thermistor Resistance	R _T	9.5	10	10.5	K Ω
Thermistor Temp. Coefficient			-4.4		%/°C
Connector	FC/APC				

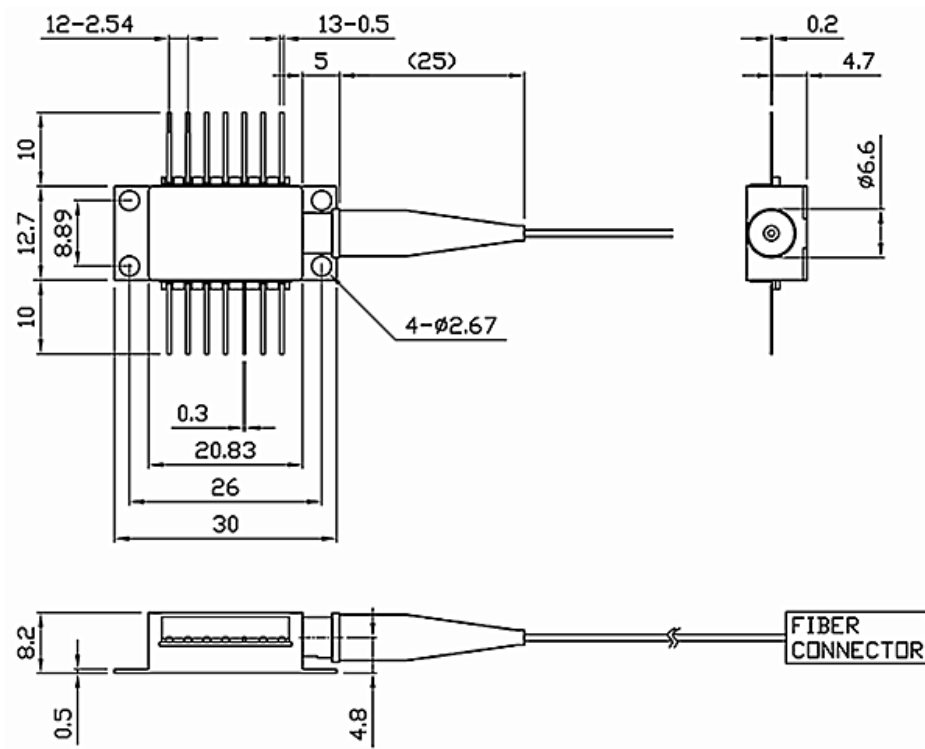
Spectrum



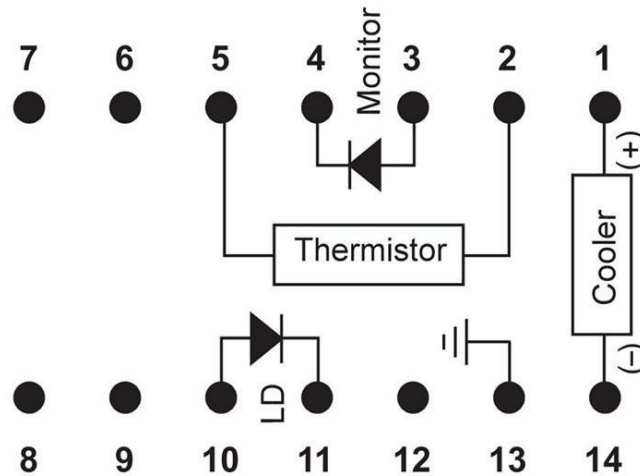
L-I Curve



Package Size



Pin definition



1	Thermoelectric Cooler (+)	8	N/C
2	Thermistor	9	N/C
3	PD Monitor Anode (-)	10	Laser Anode (+)
4	PD Monitor Cathode (+)	11	Laser Cathode (-)
5	Thermistor	12	N/C
6	N/C	13	Case Ground
7	N/C	14	Thermoelectric Cooler (-)

Absolute Maximum Ratings

Item	Unit	Min	Typ	Max
Case Temperature	°C	-5	25	70
Chip Temperature	°C	+10	25	40
Operating Current	mA	0	100	1200
Forward Voltage	V	0.8	1.2	1.8
TEC Current	A	-	1.2	1.4
Reverse Voltage(LD)	V	-	-	1.8
Reverse Voltage(PD)	V	-	-	10

OEM Info**PL-FP-□□□□-☆-A8▽-XX**

□□□□: Wavelength

405: 405nm

633: 633nm

680: 680nm

850: 850nm

1335: 1335nm

1550: 1550nm

☆: Output Power

1: 30mW

2: 70mW

▽: Wavelength Tolerance

1: ±1nm

2: ±2nm

XX: Fiber and Connector Type

SA=SMF-28E+ FC/APC

SP=SMF-28E+ FC/PC

PP=PM Fiber+ FC/PC

PA=PM Fiber+ FC/APC