

# 633nm FP Laser Diode



## Description:

The PL-FP-633-A-1-SA-14BF is single mode laser diode module designed for optical measurement and communication. The laser is packaged in 14-pin standard butterfly package with monitor photodiode and thermo-electric cooler (TEC). Coupled with Fibercore SM600 fiber. This Module is pigtailed with 0.7-1.0 m of single mode polarization maintaining fiber and connectorized by FC/APC connector.

## Features:

- Optical output: 30mW
- 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 ( $\varnothing$ 0.9mm)

## Optional:

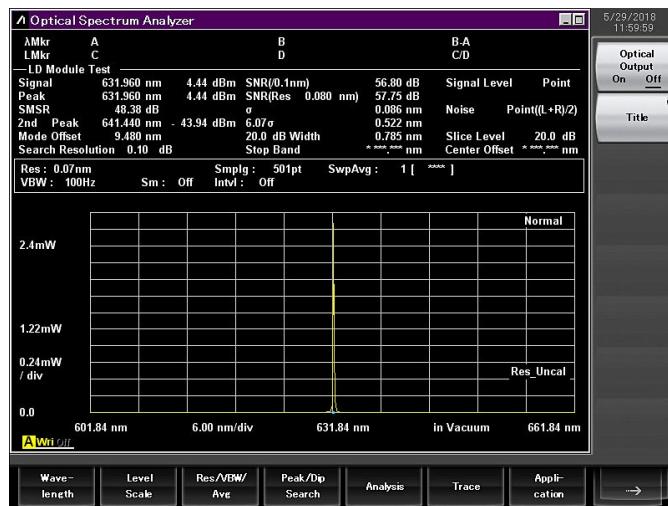
- Fiber transmission systems
- Laser interferometric
- Laser indication
- Testing Light source

## Laser Specifications:

T<sub>sub</sub>=25°C, CW bias unless stated otherwise

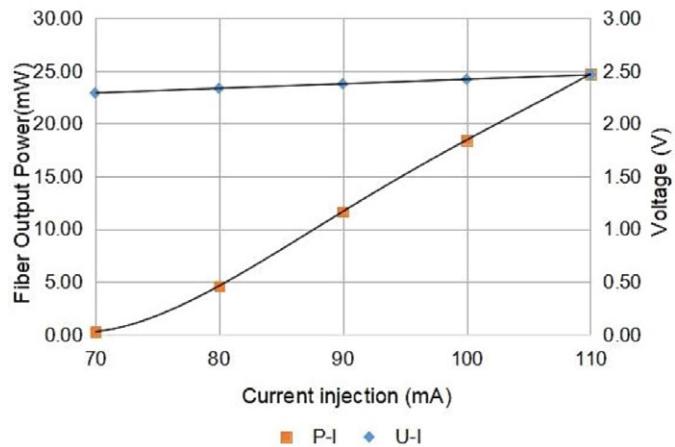
Parameter	Symbol	Min	Typ	Max	Unit
Centre Wavelength	$\lambda$	630	633	635	nm
Spectral Width	$\Delta\lambda$	0.6	0.8	1.2	nm
Threshold Current	$I_{th}$			70	mA
Operating Current	$I_{op}$		120	150	mA
Fiber output Power	$P_f$	10	20	30	mW
PD Dark Current (VRD=5V)	$I_d$			0.1	uA
Extinction Ratio PM VERSION	PER	17	20		dB
Coupled Fiber Type	Fibercore SM600 (NA=0.14)				
Forward Voltage	$V_f$		1.8	2.5	V
Thermistor Resistance	$R_T$	9.5	10	10.5	KΩ
Thermistor Temp. Coefficient			-4.4		%/°C
Connector	FC/APC				

## Spectrum:

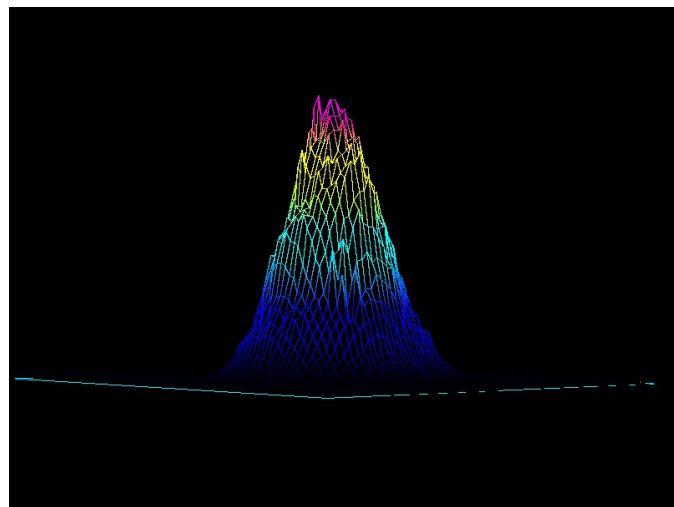


Headquarters: 288, Woolands Loop, #04-00, Singapore 738100

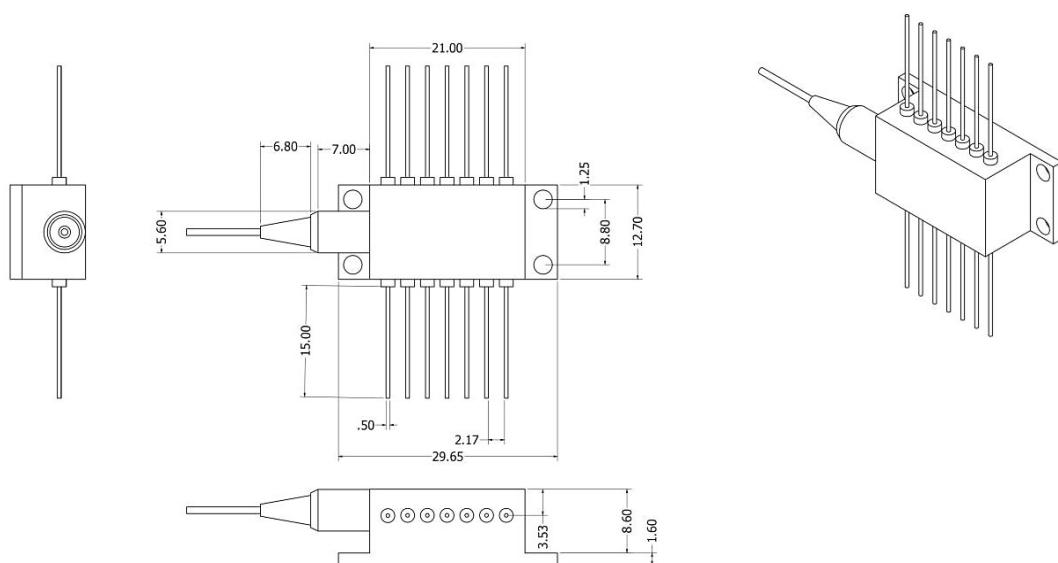
## L-I Curve:



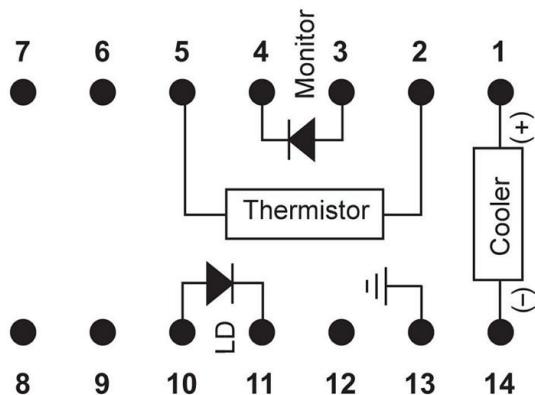
## Beam Quality:



## 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	150
Forward Voltage	V	0.8	1.2	1.8
TEC Current	A	-	-	1.2
Reverse Voltage (LD)	V	-	-	2.0
Reverse Voltage (PD)	V	-	-	20

Headquarters: 288, Woolands Loop, #04-00, Singapore 738100

**Ordering Info:**

PL-FP-□□□-☆-▽-XX-14BF

□□□: Wavelength

405: 405nm

633: 633nm

680: 680nm

850: 850nm

\*\*\*\*\*

1550: 1550nm

☆: Output Power

A: 20mW

B: 30mW

▽: Wavelength Tolerance

1: ±1nm

2: ±2nm

XX: Fiber and Connector Type

SA=SM600+ FC/APC

SP=SM600+ FC/PC

PP=PM Fiber+ FC/PC

PA=PM Fiber+ FC/APC