

785nm 1000mW FP Fiber Coupled Laser Diode



Description

LD-PD's high power diode laser modules are manufactured by adopting specialized fiber-coupling techniques, resulting in volume products with a high efficiency, stability and superior beam quality. The products are achieved by transforming the asymmetric radiation from the laser diode chip into an output fiber with small core diameter by using special micro optics. Inspecting and burn-in procedures in every aspect come to a result to guarantee each product with the reliability, stability and long lifetime.

Features

- 1000mW output power
- 785nm wavelength
- 105μm fiber core diameter
- 0.22N.A.

Application

- Laser Raman
- Spectroscopy
- Sensing
- Medical
- Military

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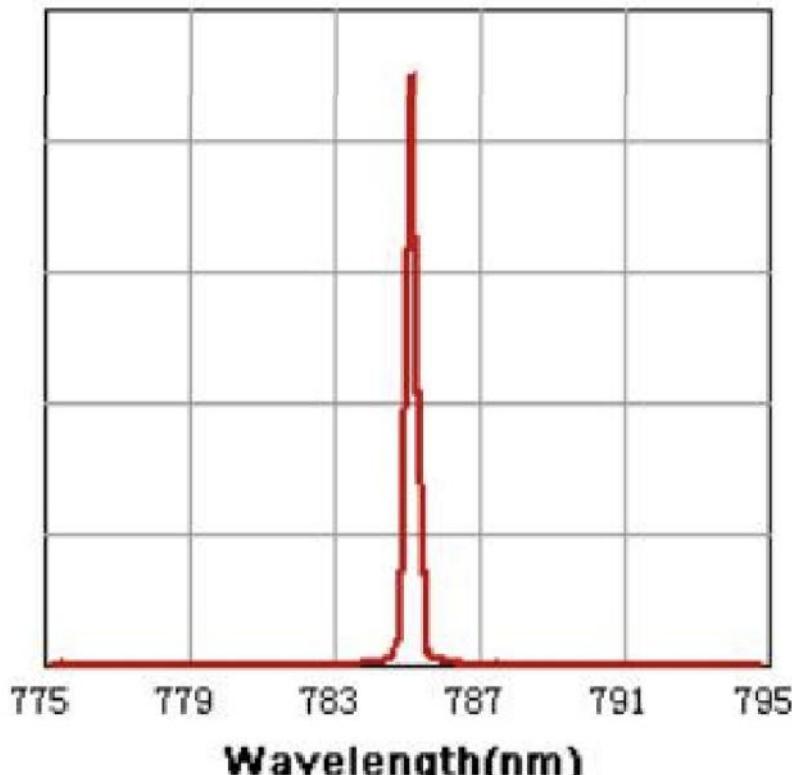
Laser Specifications

Electrical/Optical Characteristics(T_{sub}=25°C, CW bias unless stated otherwise)

Parameter	Symbol	Min	Typ	Max	Unit
Centre Wavelength	λ	780	785	790	nm
Spectral Width	$\Delta\lambda$		3	5	nm
Threshold Current	I _{th}		400		mA
Operating Current	I _{op}		1500	2200	mA
Fiber output Power	P _f	600	1000	1500	mW
PD Dark Current (VRD=5V)	I _d		300	500	uA
Wavelength Shift with Temperature	-		0.3		nm/°C
Coupled Fiber Type	105/125/250um(NA=0.22)				
Forward Voltage	V _f		1.8	2.5	V
Thermistor Resistance	R _T		10	10.5	KΩ
Thermistor Temp. Coefficient		9.5	-4.4		%/°C
Connector	FC/APC				

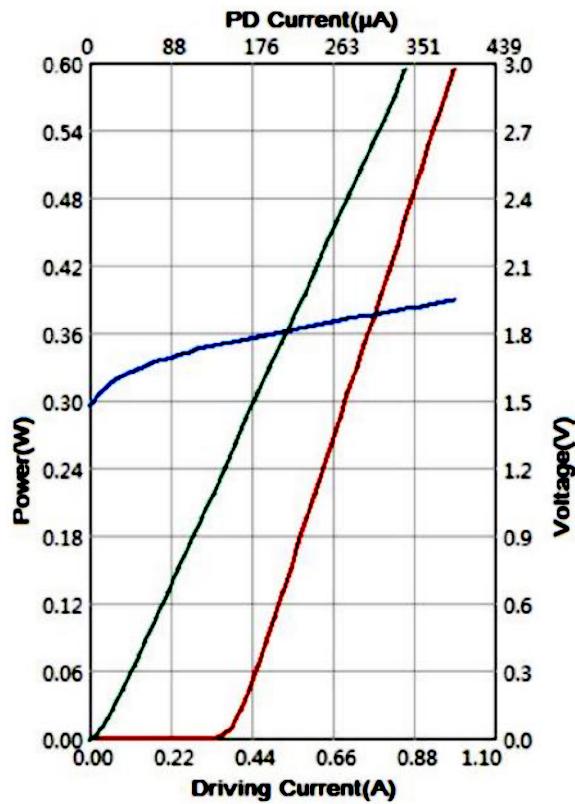
Spectrum

Spectrum

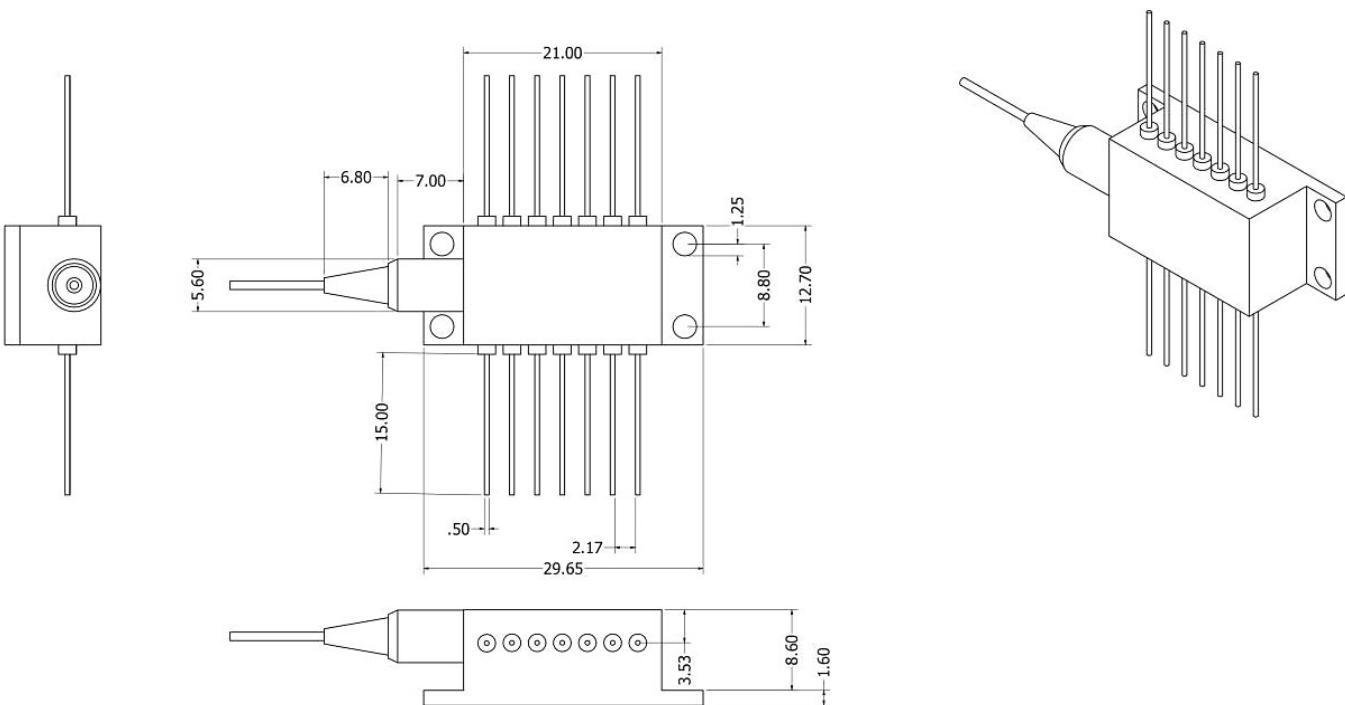


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L-I Curve

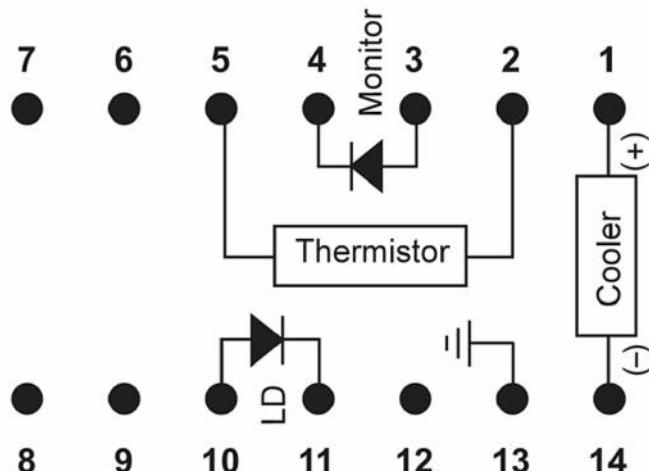


Package Size



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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	1800	2000
Forward Voltage	V	0.8	1.2	1.8
TEC Current	A	-	2.0	2.2
TEC Voltage	V		8.0	8.75
Reverse Voltage (LD)	V	-	-	1.8
Reverse Voltage(PD)	V	-	-	1

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OEM Info**PL-FP-□□□□-☆-A8▽-XX**

□□□□: Wavelength

633: 633nm

680: 680nm

785: 785nm

915: 915nm

980: 980nm

1550: 1550nm

☆ : Output Power

A: 500mW

B: 1000mW

▽: Wavelength Tolerance

1: ±1nm

2: ±2nm

XX: Fiber and Connector Type

SA=HI780+ FC/APC

SP=HI780+ FC/PC

PP=PM 980 + FC/PC

PA=PM980+ FC/APC