

## 450nm SM Pigtailed FP Laser Diode

450nm SM Pigtailed FP ( Fabry-Perot) Laser Diode is a semiconductor optoelectronic product which can output stable laser light. It features low threshold current and high quality laser output, it's widely used in Laser imaging, fiber optic sensor and VIS Application, the Laser Diode also with PD built in to monitor the optical signal power, the pigtail also can be customized to MM, PM type upon request.

### Application:

Data Transmission  
Fiber Optic Sensor  
Laser Imaging  
Testing System

### Features:

Low Threshold Current  
High Output Power  
PD Built In  
High Reliability



### Absolute Maximum Ratings:

Parameter	Symbol	Value	Unit
LD Forward Current	If	180	mA
LD Reverse Voltage	Vr	2	V
PD Forward Current	If(PD)	2	mA
PD Reverse Voltage	Vr(PD)	15	V
Operating Temperature	T	-40~+70	°C
Storage Temperature	T	-40~+85	°C
Solder Temperature	T	260	°C
Lead Solder Time		10	S

Notice: Above specifications should not be exceeded, or the LD will be seriously damaged.

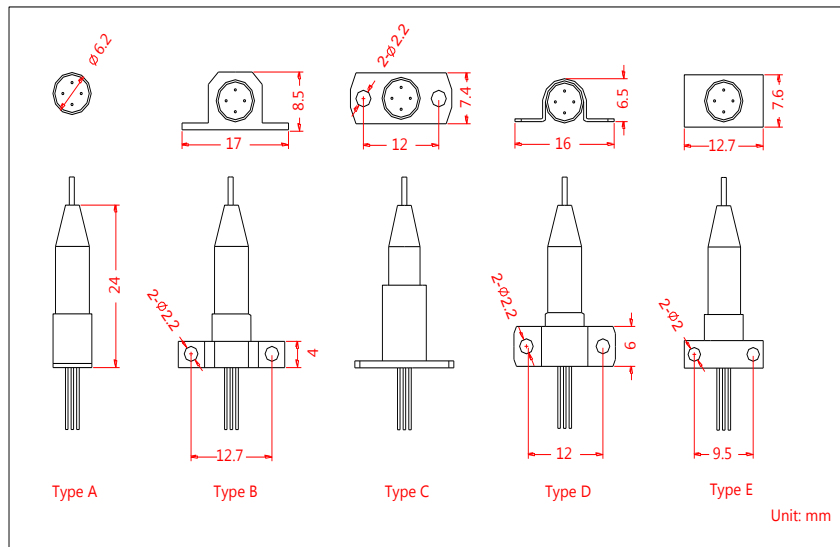
### Optical and Electrical Specification:

Parameter	Symbol	Min.	Tpy.	Max.	Unit	Test Condition
Center Wavelength	$\lambda_0$	440	450	460	nm	
Optical Power	Po	10	30		mW	CW
Spectral Width @20dB	$\Delta\lambda$		3	5	nm	CW
Threshold Current	Ith		35	60	mA	CW
LD Operating Current	If		105	150	mA	CW, Po=10mW
LD Forward Voltage	Vf		5.5	7	V	
PD Dark Current	Id			1000	nA	Vr(PD)=5V
PD Monitor Current	Im	0.1		0.5	mA	
Fiber Type		4/125 or 9/125 SM Fiber				

Notice: Above specifications are tested with 9/125 SM fiber in room temperature at 23°C.

Specifications may change without notice.

**Drawing:**



**Pin Information:**

	Type A		Type B		Type C	
	Pin 1	PD (+)	Pin 1	PD (-)	Pin 1	PD (-)
	Pin 2	LD (+), PD (-)	Pin 2	PD (+)	Pin 2	LD (-)
	Pin 3	Case	Pin 3	LD (+), Case	Pin 3	LD (+), Case
	Pin 4	LD (-)	Pin 4	LD (-)	Pin 4	PD (+)

**Ordering Information (Part Number):**

SMFPLD- <b>WWW</b> - <b>OO</b> - <b>S</b> - <b>P</b> - <b>FF</b> - <b>J</b> - <b>LL</b> - <b>CC</b>							
<b>WWW</b>	<b>OO</b>	<b>S</b>	<b>P</b>	<b>FF</b>	<b>J</b>	<b>LL</b>	<b>CC</b>
Wavelength	Optical Power	Saddle Type	Pin Assingment	Fiber Type	Fiber Jacket	Fiber Length	Connector
450 - 450nm	10 - 10mW	A - Type A	A - Type A	S4 - SM 4/125 S9 - SM 9/125	B - 250um	05 - 0.5m 10 - 1.0m 15 - 1.5m 20 - 2.0m SS - Specify	NE - None FA - FC/APC FU - FC/UPC LA - LC/APC LU - LC/UPC SA - SC/APC SU - SC/UPC SS - Specify
	20 - 20mW	B - Type B	B - Type B		Bare Fiber		
	30 - 30mW	C - Type C	C - Type C		L - 900um		
	SS - Specify	D - Type D E - Type E			Loose Tube		

**Notification:**

1. The Semiconductor Optoelectronic products are particularly sensitive of ESD (electro-static discharge), it's recommended to use grounded anti-static wrist straps and grounded anti-static mats before handling the products.
2. Never plug or unplug the products under a living circuit, setting the current supply to zero before switching on or switching off the laser diode.
3. Always take anti-static measures to storage the products when not in use.

