

780nm SM Butterfly FP Laser Diode

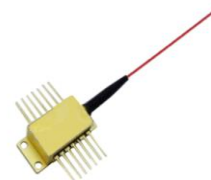
780nm SM FP (Fabry-Perot) Butterfly Laser Diode is a semiconductor optoelectronic product which can output high quality stable laser light by the SM pigtail, it's widely used in Laser Source, Fiber Optic Sensor Application, the Butterfly FP Laser Diode with PD built in to monitor the signal power, TEC built in to control the temperature, the pigtail also can be customized to MM, PM type upon request.

Application:

Laser Source
Fiber Optic Sensor
Optical Bio-medical
Testing System

Features:

FP Chip Laser
High Output Optical Power
TEC and PD Built In
High Reliability



Absolute Maximum Ratings:

Parameter	Symbol	Value	Unit
LD Forward Current	If	350	mA
LD Reverse Voltage	Vr	2	V
PD Forward Current	If(PD)	5	mA
PD Reverse Voltage	Vr(PD)	10	V
Operating Temperature	T	-40~+85	℃
Storage Temperature	T	-20~+65	℃
Solder Temperature	T	260	℃
Lead Solder Time		10	S

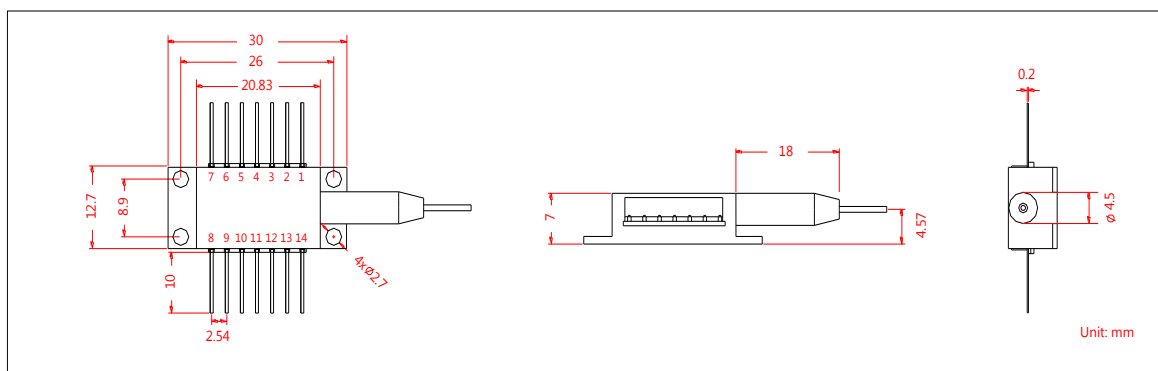
Notice: Above specifications should not be exceeded, or the LD will be seriously damaged.

Optical and Electrical Specification:

Parameter	Symbol	Min.	Tpy.	Max.	Unit	Test Condition
Center Wavelength	λ_c	775	780	785	nm	
Optical Power	Po	10			mW	CW
Spectral Width @-20dB	$\Delta\lambda$		8	10	nm	CW
Threshold Current	Ith		10	35	mA	CW
Operating Current	Iop		100	150	mA	CW, Po=10mW
Laser Forward Voltage	Vf		1.2	3	V	CW, Po=10mW
Monitor Dark Current	Id	10		100	nA	Vr(PD)=5V
Monitor Current	Im	100		1000	uA	CW
TEC Current	Itec			1.5	A	
TEC Voltage	Vtec			3.5	V	
Thermistor Resistance	Rth	9.5	10	10.5	KΩ	
Thermistor Temperature				100	℃	
Fiber Type	HI 780 Fiber					

Notice: Above specifications are tested at in room temperature at 23℃.

Specifications may change without notice.

Drawing:**Pin Information:**

Type B			
1	Thermistor	14	NC
2	Thermistor	13	LD (+)
3	LD (-)	12	LD (-)
4	PD (-)	11	LD (+)
5	PD (+)	10	NC
6	TEC (+)	9	Case Ground
7	TEC (-)	8	Case Ground

Ordering Information (Part Number):SMBFLD-**WWW**-**OO**-**P**-**FF**-**J**-**LL**-**CC**

WWW	OO	P	FF	J	LL	CC
Wavelength	Optical Power	Pin Assingment	Fiber Type	Fiber Jacket	Fiber Length	Connector
780 - 780nm	01 - 1mW 05 - 5mW 10 - 10mW 20 - 20mW 40 - 40mW SS - Specify	B - Type B	H7 - HI 780	B - 250um Bare Fiber L - 900um Loose Tube	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

Notification:

1. The Semiconductor Optoelectronic products are particulary 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.

