1550nm High Power SM Butterfly DFB Laser Diode

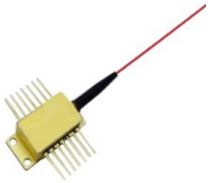
1550nm High Power SM DFB (Distributed Feedback) Butterfly Laser Diode is a semiconductor optoelectronic product which can output high quality stable laser light by the SM pigtail, it's widely used in Telecom Data Transfer, Fiber Optic Sensor and Light Source Application, the Butterfly DFB Laser Diode with PD built in to monitor the signal power, TEC built in to control the temperature, isolator built in to avoid the back reflection laser light. the pigtail also can be customized to MM, PM type upon request.

Application:

Data Transmission
Fiber Optic Sensor
CWDM/DWDM System
Testing System

Features:

MQW DFB Laser
High Output Optical Power
TEC, PD and Isolator Built In
High Reliability



Absolute Maxmum Ratings:

Parameter	Symbol	Value	Unit
LD Forward Current	If	1100	mA
LD Reverse Voltage	Vr	2.5	V
MPD Reverse Voltage	Vr(PD)	10	V
Operating Temperature	T	-40~+85	℃
Storage Temperature	T	-40~+85	℃
Solder Temperature	T	260	℃
Lead Solder Time		10	S

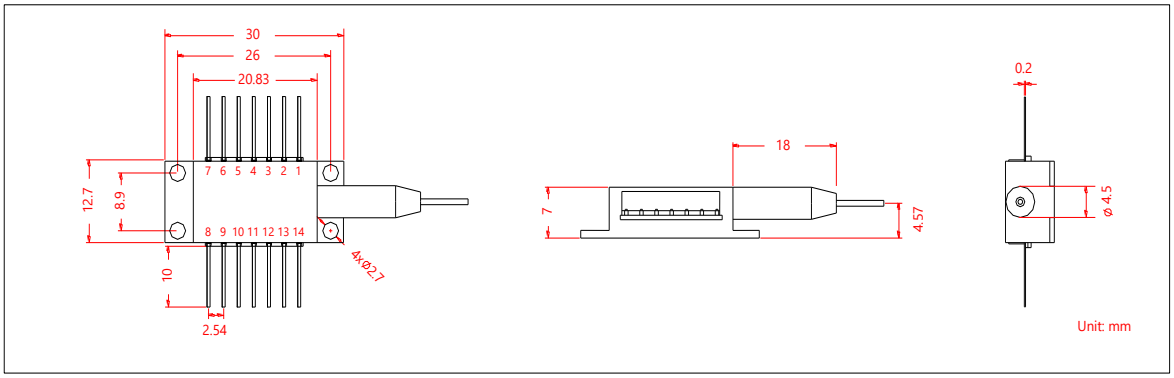
Notice: Above specifications should not be exceeded, or the LD will be seriously damaged.

Optical and Electrical Specification:

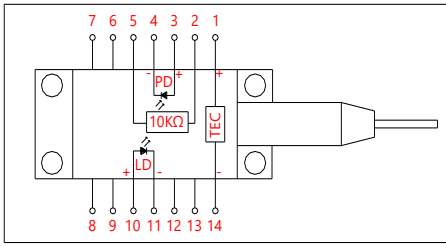
Parameter	Symbol	Min.	Tpy.	Max.	Unit	Test Condition
Center Wavelength	λc	1545	1550	1555	nm	
Optical Power	Po	1	10	180	mW	CW
Spectral Width @-20dB	Δλ		0.1	0.3	nm	CW
Optical Isolation	ISO	30			dB	Optional
Side-Mode Suppression Ratio	SMSR	35	40		dB	
Threshold Current	Ith		10	15	mA	CW
Operating Current	Iop		100	1000	mA	CW
Forward Voltage	Vf		1.5	2	V	CW
Monitor Dark Current	Id	10		200	uA	
Monitor Current	Im	100		1000	uA	CW
TEC Current	Itec			1.2	A	
TEC Voltage	Vtec			3.5	V	
Relative Intensity Noise	RIN		-140		dB/Hz	
Thermistor Resistance	Rth	9.5	10	10.5	KΩ	
Thermistor Temperature				100	℃	
Side Mode Suppression Ratio	SMSR	35	45		dB	CW
Fiber Type	SMF-28e Fiber					

Notice: Above specifications are tested at in room temperature at 23℃.
Specifications may change without notice.

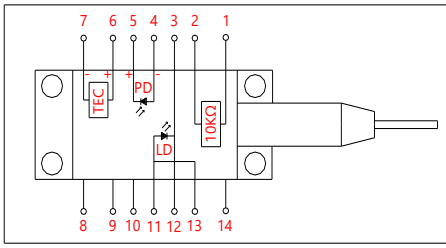
Drawing:



Pin Information:



Type A			
1	TEC (+)	14	TEC (-)
2	Thermistor	13	NC
3	MPD (+)	12	NC
4	MPD (-)	11	LD (-)
5	Thermistor	10	LD (+)
6	NC	9	NC
7	NC	8	NC



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

Ordering Information (Part Number):

SMBDLD-WWWW-OO-P-FF-J-LL-CC

WWWW	OO	P	FF	J	LL	CC
Wavelength	**Optical Power**	**Pin Assingment**	**Fiber Type**	**Fiber Jacket**	**Fiber Length**	**Connector**
1550 - 1550nm	01 - 1mW 05 - 5mW 10 - 10mW 20 - 20mW 40 - 40mW 180 - 180mW SS - Specify	A - Type A B - Type B	S2 - SMF-28e	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.