

## DWDM Butterfly Laser Module

**RZLD-1562.23-10-BP-FA-14**

### ◆ Description

The high quality DFB laser diode with butterfly package can meet high power of optical transmitter system. Also, the built-in thermo-electric cooler (TEC) can make the laser diode work properly in various environments.

### ◆ Features:

- ◆ High linearity Direct Modulation DFB laser
- Butterfly package
- Built-in Isolator, TEC, Thermistor
- Operating Temperature -20~ +70°C (Optional)
- Single-mode/PM fiber pigtail.

### ◆ Absolute Maximum Ratings

Parameter	Symbol	Min	Max	Unit	Condition
Operating Case Temperature	T <sub>c</sub>	-20	70	°C	--
Storage Temperature	T <sub>stg</sub>	-40	85	°C	--
Reverse Voltage	V <sub>r</sub>	--	2.0	V	
Forward current	I		120	mA	
Thermoelectric cooler voltage	V <sub>TEC</sub>		2.6	V	
Thermoelectric cooler current	I <sub>TEC</sub>		1.5	A	
Lead solder Temperature	--		260	°C	--
Lead Soldering Time	--		10	s	--

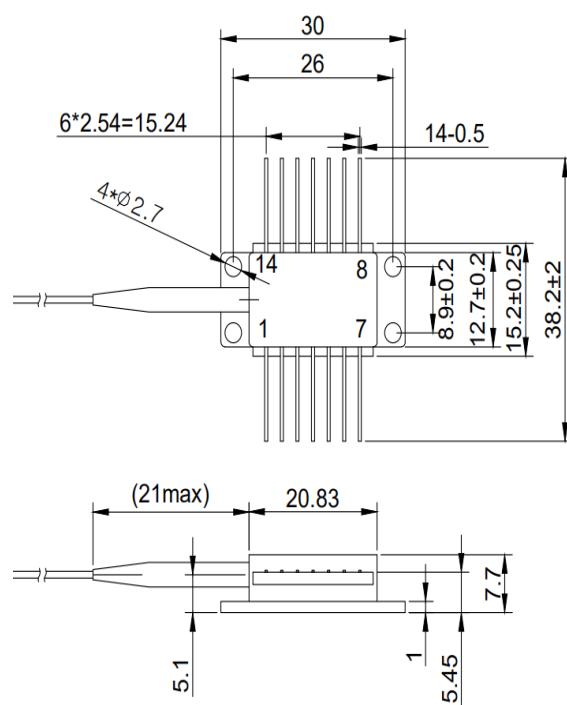
### ◆ Optical/Electrical Characteristics (T=25/45°C, unless otherwise stated)

Parameter	Symbol	Min	Typ	Max	Unit	Test Conditions
Optical Output Power	P <sub>o</sub>	5	--	--	mW	CW,
Threshold Current	I <sub>th</sub>	--	8	15	mA	T=25 /45°C
Forward Voltage	V <sub>F</sub>	--	1.1	2.0	V	
Operating Current	I <sub>op</sub>	--	--	120	mA	CW, T=25/45 °C
Center Wavelength	λ <sub>c</sub>	λ <sub>c</sub> -0.5	λ <sub>c</sub>	λ <sub>c</sub> +0.5	nm	CW, T=25/45 °C
Side-mode Suppression Ratio	SMSR	35	40	--	dB	I <sub>op</sub> =70mA
Optical Isolation (Optional)		35			dB	
Spectral Width (-20 dB)	Δλ	--	0.1	1.0	nm	
Wavelength temperature coefficient	△λ/△T		0.08	0.12	nm/°C	
Monitor Current	I <sub>mon</sub>	50	--	1500	μA	V <sub>R</sub> =5 V,
Monitor Dark Current	I <sub>D</sub>	--	--	50	nA	V <sub>R</sub> =5 V
Thermistor Resistance	R <sub>T</sub>	9.5	10.0	10.5	KΩ	T=25 °C
Thermistor B-Value		--	3950	--	K	25°C/85°C
Tracking Error	TE	-1.0	--	+1.0	dB	TE=10log(Po(Tc)/Po(25°C))
Polarization extinction ratio (optional)	PER	17	-	-	dB	Slow axis alignment

## ◆ Dimensions and Pin Description

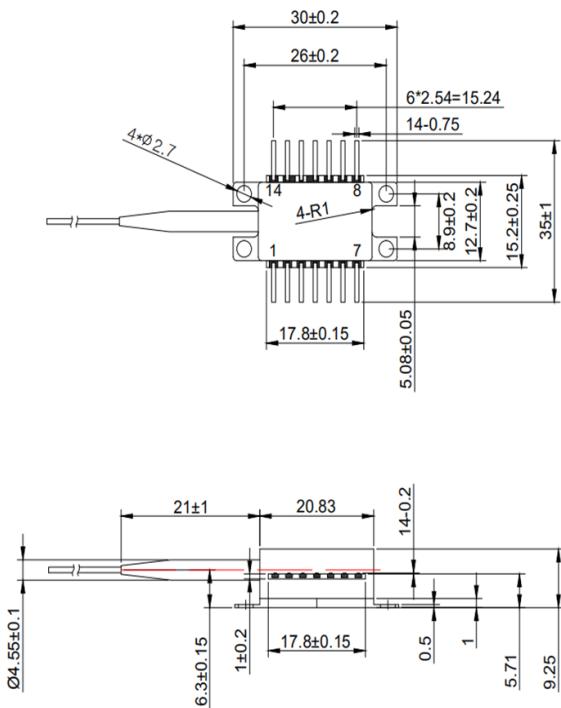
Dimensions are in millimeters. All dimensions are  $\pm 0.1\text{mm}$  unless otherwise specified.

Type: 00



编号/PIN	针脚定义/Description
1	制冷器正极/TEC Cooler+
2	热敏电阻/Termistor
3	PD正极/PD Anode
4	PD负极/PD Cathode
5	热敏电阻/Termistor
6	空/NC
7	空/NC
8	空/NC
9	空/NC
10	激光器正极/LD+
11	激光器负极/LD-
12	空/NC
13	接地/Ground
14	制冷器负极/TEC Cooler-

Type: 01



编号/PIN	针脚定义/Description
1	热敏电阻/Termistor
2	热敏电阻/Termistor
3	激光器负极/LD-
4	PD正极/PD Anode
5	PD负极/PD Cathode
6	制冷器正极/TEC Cooler+
7	制冷器负极/TEC Cooler-
8	接地/Ground
9	接地/Ground
10	空/NC
11	激光器正极/LD+(可选接地)
12	激光器射频负极/Laser RF cathode
13	激光器正极/LD+(可选接地)
14	空/NC

◆ Order information

**RZLD-1562.23-10-BP-FA-14**

RZLD	wavelength	Output Power	encapsulation & Fiber selection	Connector	PIN
RZLD=LD	...nm	...mW	BP=BTF PM Fiber	00=NO	14
RZSLD=SLED	1064	5	BS=BTF SM Fiber	FA=FC/APC	10
RZNLD=Narrow line width	1310	50	BM=BTF MM Fiber	FU=FC/UPC	8
RZPLD= Pulsed laser	1550	200	DP=DIP PM Fiber	SA=SC/APC	
...	...	400	...	...	
		...			

**Note: The laser module are ESD-sensitive devices. Please insure that proper ESD handling procedures are followed.**