

## 1550nm Narrow Line-width Laser Module

### RZNLD-1550-XX-BX-FA-14-XX

#### ■ Features

- High linearity Direct Modulation DFB laser
- High output power
- Ultra - narrow linewidth
- Built-in Isolator,TEC,Thermistor, 14 Pin Butterfly Package
- High reliability
- Single-mode/PM1550 fiber pigtail(Red loose tube)

#### ■ Applications

- Optical fiber sensing
- Laser radar
- Optical communication
- Scientific research
- Fiber-optic hydrophones

#### ■ Absolute Maximum Ratings

Parameter	Symbol	Min	Max	Unit	Condition
Operating Case Temperature	Tc	-20	70	°C	--
Storage Temperature	Tstg	-40	85	°C	--
Reverse Voltage	Vr	--	3.5	V	--
Forward current	I	--	500	mA	--
Thermoelectric cooler voltage	VTEC	--	3.4	V	--
Thermoelectric cooler current	ITEC	--	1.2	A	--
Lead solder Temperature	--	--	260	°C	--
Lead Soldering Time	--	--	10	s	--
Electro Static Discharge	ESD	500V	--	V	HBM

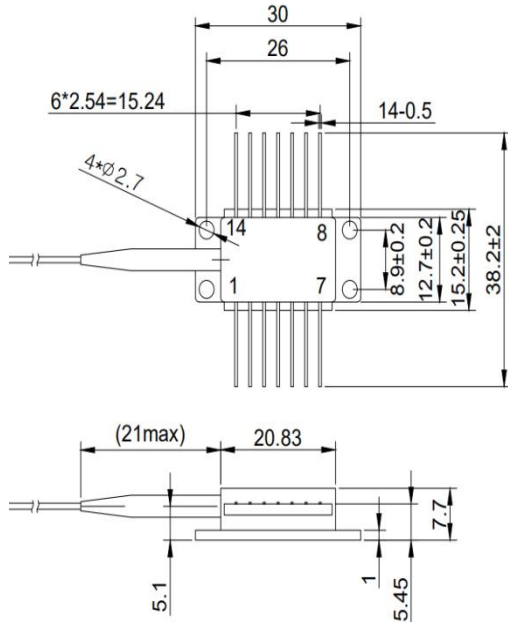
#### ■ Specifications (electrical & optical characteristics )T=25°C

Parameter	Symbol	Min	Typ	Max	Unit	Test Conditions
Optical Output Power	P <sub>o</sub>	10	--	--	mW	CW, T=25 °C
Threshold Current	I <sub>th</sub>	--	--	35	mA	CW, T=25 °C
Forward Voltage	V <sub>F</sub>	--	--	3.5	V	CW, T=25 °C
Operating Current	I <sub>op</sub>	--	--	400	mA	CW, T=25 °C
Center Wavelength	λ <sub>c</sub>	1547	λ <sub>c</sub>	1553	nm	CW, T=25 °C
Side-mode Suppression Ratio	SMSR	35	40	--	dB	CW, T=25 °C
Optical Isolation (Optional)		35	--	--	dB	
Laser line width	Δ λ L	--	--	10	MHz	CW, T=25 °C
Relative Intensity Noise	RIN	--	--	-140	dB/Hz	CW, T=25 °C
Slope Efficiency	SE	0.15	0.25	--	mW/mA	CW, T=25 °C
Monitor Current	I <sub>mon</sub>	30	--	2000	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
Polarization extinction ratio	PER	17	-	-	dB	Slow axis alignment

## Pin Assignment: Dimensions (mm)

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

Type: 00



编号/PIN	引脚定义/Description
1	制冷器正极/TEC Cooler+
2	热敏电阻/Thermistor
3	PD正极/PD Anode
4	PD负极/PD Cathode
5	热敏电阻/Thermistor
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-

## Order Information:

RZNLD-1550-XX-BX-FA-14-XX

RZLD	wavelength	Output Power	encapsulation & Fiber selection	Connector	PIN	Line width
RZLD=LD	...nm	...mW	BP=BTF PM Fiber	00=NO	14	01 3K
RZSLD=SLED	1064	5	BS=BTF SM Fiber	FA=FC/APC	10	02 5K
RZNLD=Narrow line width	1310	50	BM=BTF MM Fiber	FU=FC/UPC	8	03 10K
RZPLD= Pulsed laser	1550	...	DP=DIP PM Fiber	SA=SC/APC	6	04 100K
RZSOA=SOA	...	...	...	...		05 150K
RZTLD=Tunable laser	...	...	...	...		06 200K
...						07 300K
						08 500K
						09 1M
						10 3M
						11 5M
						12 10M

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