

Narrow Line-width DFB Butterfly Device

RZNLD-xxxx-xx-xx-xx-14-xx

◆ Description

The high quality MQW 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:

- Multi-Quantum Well (MQW) Distributed Feedback (DFB) lasers
- Butterfly package
- Built-in thermistor, and TEC
- Operating Temperature $-20\sim +70^{\circ}\text{C}$
- Single-mode/PM fiber pigtail.

◆ Absolute Maximum Ratings

Parameter	Symbol	Min	Max	Unit	Condition
Operating Case Temperature	T_c	-20	70	$^{\circ}\text{C}$	--
Storage Temperature	T_{stg}	-40	85	$^{\circ}\text{C}$	--
Reverse Voltage	V_R	--	2.0	V	
Forward current	I		500	mA	
Thermoelectric cooler voltage	V_{TEC}		2.6	V	
Thermoelectric cooler current	I_{TEC}		1.5	A	
Lead solder Temperature	--		260	$^{\circ}\text{C}$	--
Lead Soldering Time	--		10	s	--

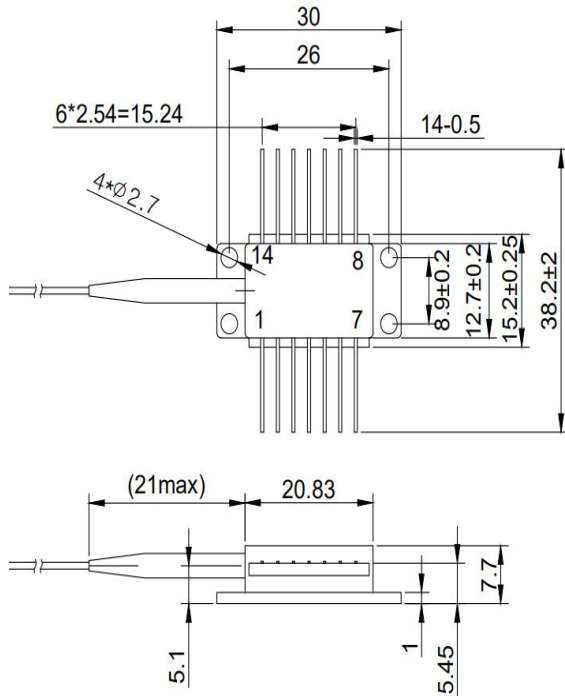
◆ Optical/Electrical Characteristics (T=25 $^{\circ}\text{C}$, unless otherwise stated)

Parameter	Symbol	Min	Typ	Max	Unit	Test Conditions
Optical Output Power	P_o	--	--	60	mW	CW,
Threshold Current	I_{th}	--	15	25	mA	T=25 $^{\circ}\text{C}$
Forward Voltage	V_F	--	1.5	3	V	
Operating Current	I_{op}	--	--	400	mA	CW, T=25 $^{\circ}\text{C}$
Center Wavelength	λ_c	λ_c-5	λ_c	λ_c+5	nm	CW, T=25 $^{\circ}\text{C}$
Side-mode Suppression Ratio	SMSR	35	40	--	dB	$I_{\text{op}}=30\text{mA}$
Optical Isolation (Optional)		35	--	--	dB	
Laser line width	$\Delta \lambda_L$	--	--	10	MHz	CW, T=25 $^{\circ}\text{C}$
Spectral Width (-20 dB)	$\Delta \lambda$	--	0.1	1.0	nm	
Wavelength temperature coefficient	$\Delta \lambda / \Delta T$		0.08	0.12	nm/ $^{\circ}\text{C}$	
Monitor Current	I_{mon}	50	--	1500	μA	$V_R=5\text{V}$,
Thermistor Resistance	R_T	9.5	10.0	10.5	K Ω	T=25 $^{\circ}\text{C}$
Thermistor B-Value		--	3950	--	K	25 $^{\circ}\text{C}/85^{\circ}\text{C}$
Polarization extinction ratio (optional)	PER	17	-	-	dB	Slow axis alignment

◆ **Dimensions and Pin Description**

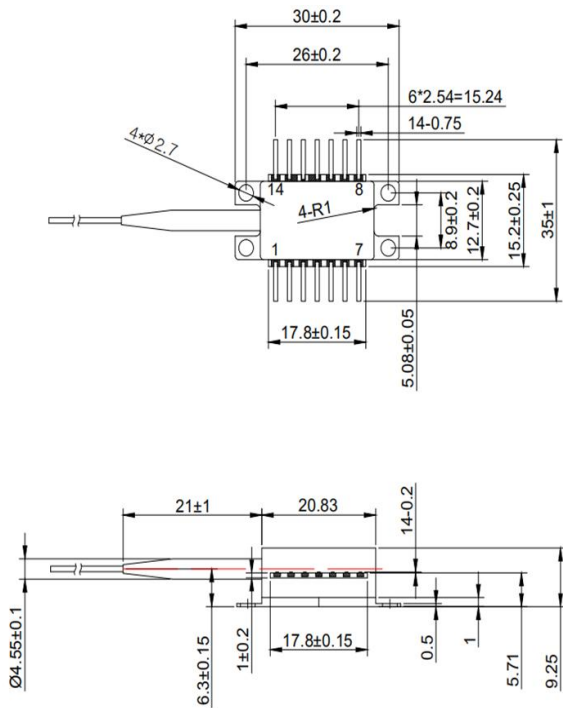
Dimensions are in millimeters. All dimensions are ± 0.1 mm unless otherwise specified.

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-

Type: 01



编号/PIN	引脚定义/Description
1	热敏电阻/Thermistor
2	热敏电阻/Thermistor
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-xxxx-xx-xx-xx-xx-x

RZLD	wavelength	Output Power	Type & Fiber selection	Connector	PIN	Line width	ISO
RZLD=LD	...nm	...mW	BP=Type00 PM	00=NO	14	01 -3K	0 -None
RZSLD=SLED	1064	5	BS=Type00 SM	FA=FC/APC	10	02 -5K	
RZNLD=Narrow line width	1310	50	BM=Type00 MM	FU=FC/UPC	8	03 -10K	1-Single Stage
RZPLD= Pulsed laser	1550	200	CP=Type01 PM	SA=SC/APC	6	04 -100K	
RZSOA=SOA	...	400	CS=Type01 SM	...		05 -150K	2-Dule Stage
RZTLD=Tunable laser		...	CM=Type01 MM			06 -200K	
...			...			07 -300K	
						08 -500K	
						09 -1M	
						10 -3M	
						11 -5M	
						12 -10M	

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