

## 980nm PUMP Laser Butterfly Modules

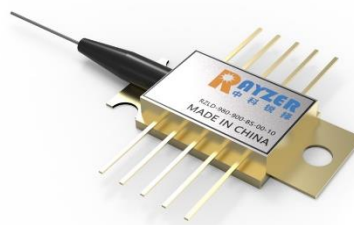
### RZLD-974-400-BP-00-14

#### ◆ Description

The high quality pump 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:

- Operating power range from 50-900mW
- Optional Butterfly package (Type: 00/01/02)
- Built-in thermistor, and TEC
- Fiber Bragg grating stabilization
- Fiber selection available (Single-mode/PM fiber)
- Telcordia GR-468-CORE.



#### ◆ 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		1800	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	

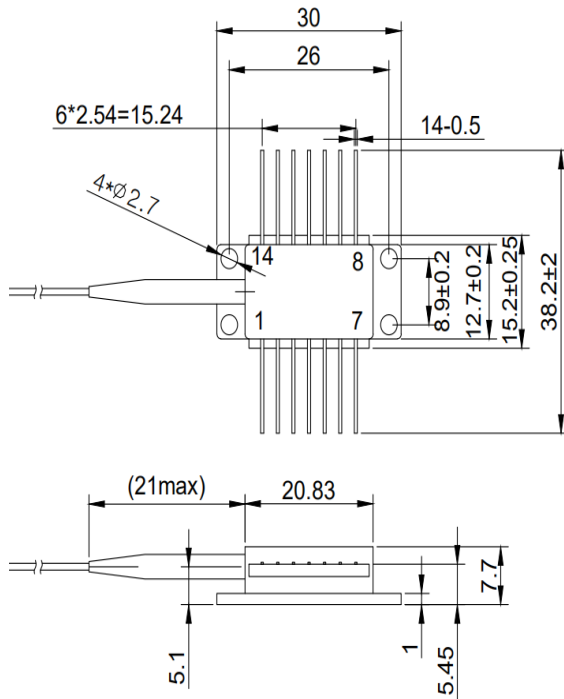
#### ◆ Optical/Electrical Characteristics (T=25°C, unless otherwise stated)

Parameter	Symbol	Min	Typ	Max	Unit	Test Conditions
Optical Output Power	P <sub>o</sub>	--	--	900	mW	CW,
Threshold Current	I <sub>th</sub>	--	--	150	mA	T=25 °C
Forward Voltage	V <sub>F</sub>	--	--	2.0	V	
Operating Current	I <sub>op</sub>	--	--	1800	mA	CW, T=25 °C
Center Wavelength	λ <sub>c</sub>	973	974	975	nm	Peak, P <sub>i</sub> =Rated Power
		975	976	977		
Side-mode Suppression Ratio	SMSR	35	40	--	dB	I <sub>op</sub> =30mA
Wavelength temperature coefficient	Δλ/ΔT	--	--	0.1	nm/°C	T: FBG Temp.
Spectrum Width	Δλ	--	--	2	nm	RMS@-13dB
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
Polarization extinction ratio (Optional)	PER	17	-	-	dB	Slow axis alignment

#### ◆ Dimensions and Pin Description

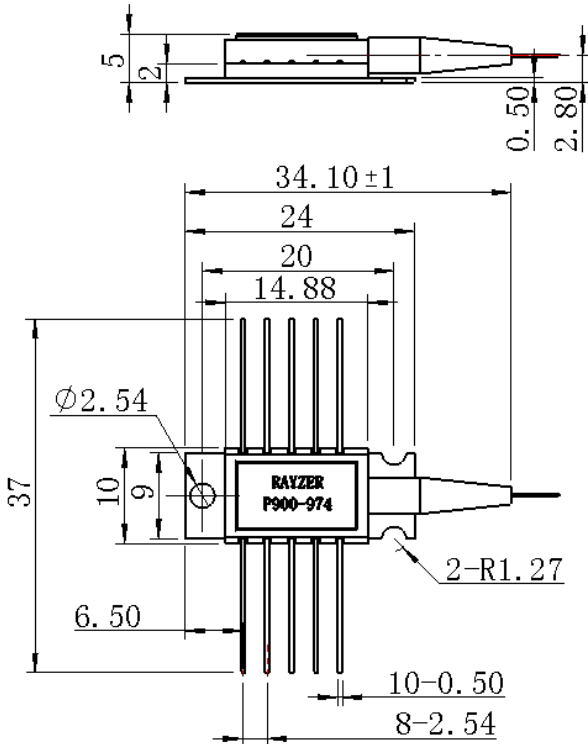
Dimensions are in millimeters. All dimensions are  $\pm 0.1$ mm unless otherwise specified.

**Type: 00**



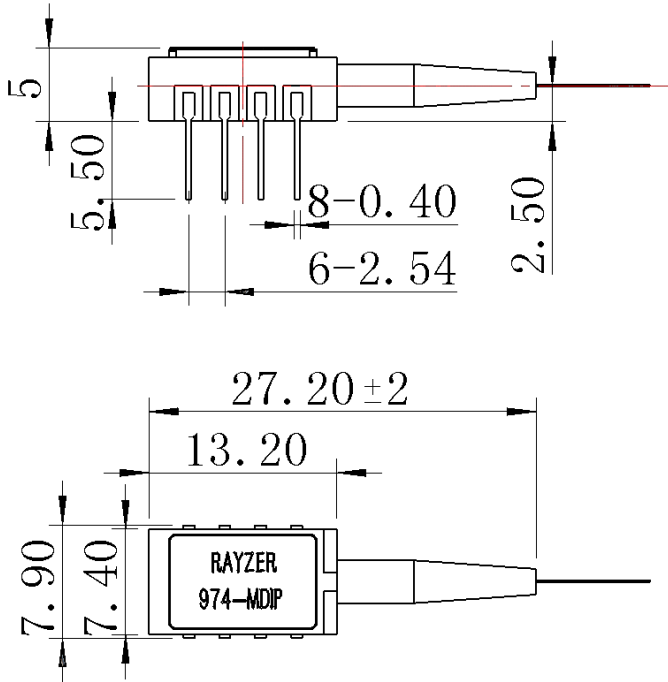
编号/PIN	引脚定义/Description
1	制冷器正极/TEC Cooler+
2	热敏电阻/Thermistor
3	PD正极/PD Anode
4	PD负极/PD Cathode
5	热敏电阻/Thermistor
6	空/NC
7	空/NC
8	空/NC
9	空/NC
10	激光器正极/LD+
11	激光器负极/LD-
12	空/NC
13	接地/Ground
14	制冷器负极/TEC Cooler-

**Type: 01**



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	激光器正极/LD+
7	激光器负极/LD-
8	空/NC
9	接地/Ground
10	制冷器负极/TEC Cooler-

Type: 02



编号/PIN	引脚定义/Description
1	热敏电阻/Thermistor
2	接地/Ground
3	热敏电阻/Thermistor
4	PD正极/PD Anode
5	PD负极/PD Cathode
6	激光器负极/LD-
7	激光器正极/LD+
8	空/NC

◆ Order information

**RZLD-974-400-BP-00-14**

RZLD	Wavelength	Output Power	Encapsulation & Fiber selection	Connector	PIN
RZLD=LD	...nm	...mW	BP=BTF PM Fiber	00=NO	14
RZSLD=SLED	974	50	BS=BTF SM Fiber	FA=FC/APC	10
RZNLD=Narrow linewidth	976	200	BM=BTF MM Fiber	FU=FC/UPC	8
RZPLD= Pulsed laser	1064	600	DP=DIP PM Fiber	SA=SC/APC	
...	1310	900	...	...	
	1550	...			
	...				