



## RLCD-A81H-8W



### TECHNICAL DATA

## Fiber Coupled Dual-Wavelength Laser Diode

#### Features

- Output Power: 8 W
- 808 nm Emission Wavelength
- Spectral Width:  $\leq 6$  nm
- Fiber Coupled, 200  $\mu$ m or 400 $\mu$ m
- Aiming Beam: 650 nm

#### Applications

- Dentistry
- Surgery
- Aesthetics
- Physiotherapy

#### Specifications (25°C)

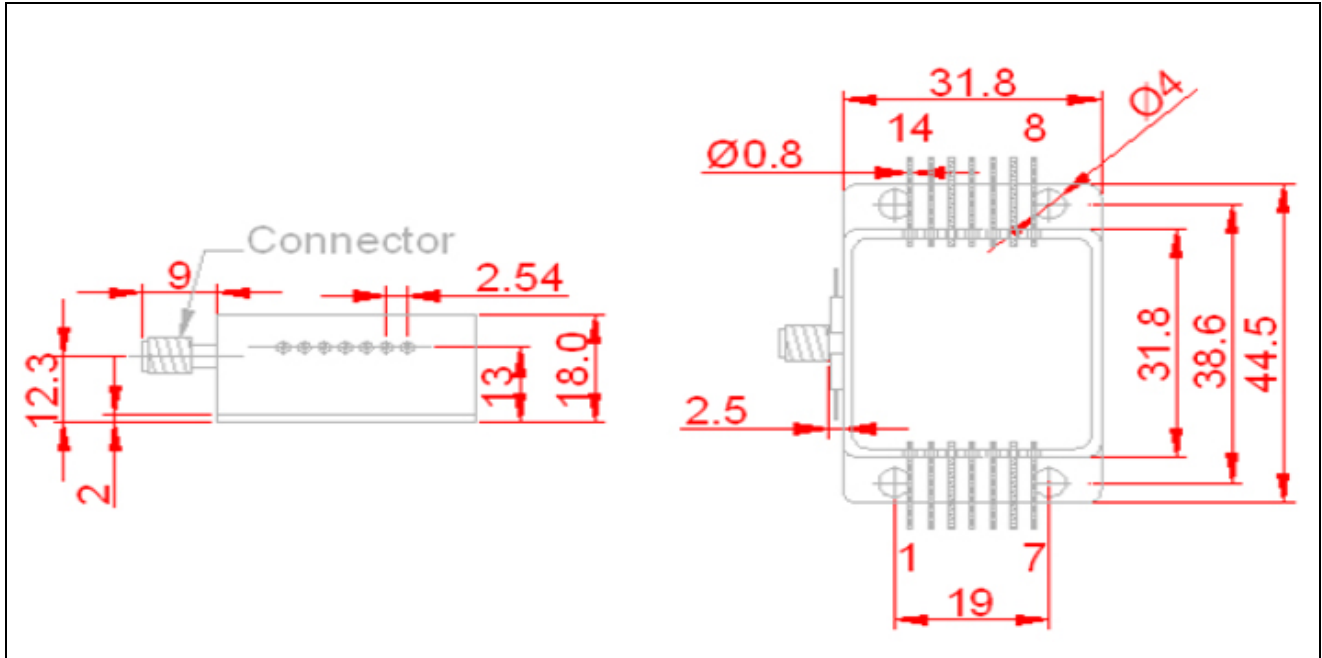
Type	Symbol	Min.	Typ.	Max.	Unit
<b>Infrared Laser</b>					
Output Power	$P_F$	-	8	-	W
Center Wavelength	$\lambda_C$	798	808	818	nm
Spectral Width	$\Delta\lambda$	-	-	6	nm
Threshold Current	$I_{th}$		1.8		A
Operation Current	$I_{op}$		11		A
Operation Voltage	$V_{op}$			2.2	V
Temperature Coefficient			0.3		nm/°C
Package Style			14-pin HHL, receptacle		
<b>TEC</b>					
Thermistor Value (25°C)			10 $\pm$ 0.5		K $\Omega$
TEC Max. Current			6.0		A
TEX Max. Voltage			9.8		V
<b>Fiber Characteristics</b>					
Fiber Core Diameter		-	200	-	$\mu$ m
Fiber Numerical Aperture		-	0.22	-	
Connector			SMA-905 or ST		
<b>Aiming Beam</b>					
Aiming Beam Wavelength		640	650	660	Nm
Aiming Beam Operating Voltage			2.2		V
<b>Absolute Maximum Ratings</b>					
LD Reverse Voltage	$U_r$		2.0		V
Operating Temperature	$T_{op}$		+10 ... +30		°C
Storage Temperature	$T_{sta}$		-20 ... +80		°C
Lead Soldering Temperature (10 sec.)	$T_{sol}$		260		°C

The above specifications are for reference purpose only and subjected to change without prior notice.





## Dimensions (mm)



## Pin description

PIN	FUNCTION
1	Case
2	LD(+)
3	Thermistor
4	Thermistor
5	LD(-)
6	PD(P)
7	PD(N)
8	TEC(-)
9	FCD PD(P)
10	FCD LED(-)
11	FCD LED(+), FCD PD(N)
12	Aiming Beam LD(+5V)
13	Aiming Beam LD(0V)
14	TEC(+)



## Safety of Laser light

- Laser Light can damage the human eyes and skin. Do not expose the eye or skin directly to any laser light and/or through optical lens. When handling the LDs, wear appropriate safety glasses to prevent laser light, even any reflections from entering to the eye. Focused laser beam through optical instruments will increase the chance of eye hazard.
- **This Laser is emitting invisible light!**



## Cautions

### 1. Operating method

- Confirm that electrical spike current generated by switching on and off does not exceed the maximum operating current level specified herein above as absolute maximum rating. Also, employ appropriate countermeasures to reduce chattering and/or overshooting in the circuit.

### 2. Static Electricity

- Static electricity or electrical surges will reduce and degrade the reliability of the LDs. It is recommended to use a wrist trap or anti-electrostatic glove when handling the product.

### 3. Absolute Maximum Rating

- Active layer of LDs shall have high current density and generate high electric field during its operation. In order to prevent excessive damage, the LD must be operated strictly below absolute maximum rating.



**NOTE**  
LASERDIODE  
MUST BE COOLED