



RLCO-830-1000-F

TECHNICAL DATA



High Power Infrared Laser Diode

Features

- Lasing Mode Structure: multi mode
- Peak Wavelength : typ. 830 nm
- Optical Output Power: 1 W
- Optional with monitor PD (on request)
- Package: 4-pin DIL



Specifications

Item	Symbol	Min.	Typ.	Max.	Unit
Optical Specifications					
CW Output Power	P_O	-	1	-	W
Center Wavelength	λ_C	825	830	835	nm
Spectral Width (FWHM)	$\Delta\lambda$	-	3.5	4.5	nm
Fiber Buffer		-	230	-	μm
Fiber Clad		-	125	-	μm
Fiber Core		-	50	-	μm
Numerical Aperture		-	0.12	0.22	
Fiber Length		-	1.0	-	m
Connector			SMA-905		
Electrical Specifications					
Threshold Current	I_{th}	-	0.15	0.2	A
Operating Current	I_{op}	-	1.2	1.5	A
Slope Efficiency	H	0.6	0.8	-	W/A
Operating Voltage	U_{op}	-	1.8	2.2	V
Wavelength Temperatur Coefficient		-	0.3	-	nm/°C
Operating Temperature	T_{op}	-	25	-	°C
Storage Temperature	T_{stg}	-20	-	80	°C

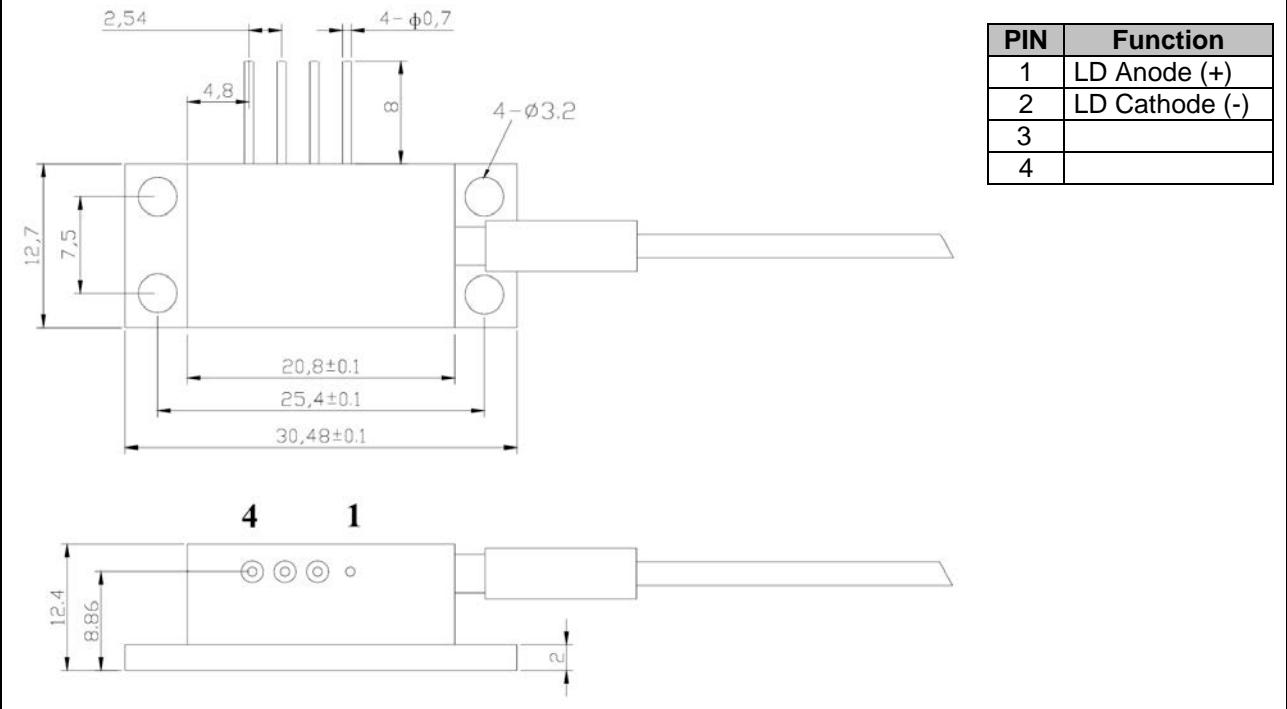
The above specifications are for reference purpose only and subjected to change without prior notice.





Package Dimensions

4-pin DIL Package (Unit: mm)





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 LD is emitting invisible light.



Cautions

1. Operating methode

- This LD shall change its forward voltage requirement and optical output power according to temperature change. Also, the LD will require more operation current to maintain same output power as it degrades.
- 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