ROITHNER LASERTECHNIK GmbH
WIEDNER HAUPTSTRASSE 76 1040 VIENNA AUSTRIA
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RLT1060-150G

TECHNICAL DATA

High Power Infrared Laser Diode

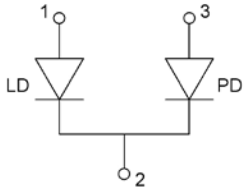
High power, single mode laser diode, featuring high reliability and long lifetime. Suitable for many applications including medical laser therapy and defense

Features

- Lasing Mode Structure: single mode
- Peak Wavelength : typ. 1064 nm
- Optical Output Power: 150mW
- Package: TO 9 mm

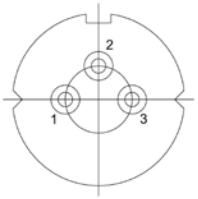
Electrical Connection

Pin Configuration	Bottom View



n-type

PIN	Function
1	LD Anode
2	LD Cathode, PD Cathode
3	PD Anode



Absolute Maximum Ratings (T_C=25°C)

Item	Symbol	Value	Unit
CW Output Power	P_O	150	mW
Operating Case Temperature	T_C	-20 … +50	°C
Storage Temperature	T_{stg}	-40 … +80	°C

Specifications (T_C=25°C)

Item	Symbol	Min.	Typ.	Max.	Unit
Optical Specification					
CW Output Power	P_O	-	150	-	mW
Kink Power	P_K		180		mW
Peak Wavelength	λ_P	1059	1064	1069	nm
Spectral Width (FWHM)	$\Delta\lambda$	-	0.5	2.0	nm
Far Field (FWHM)	$\theta_\parallel$	-	8	10	deg
	$\theta_\perp$	-	28	30	deg
Emitting Aperature	W x H		5 x 1		µm
Chip Cavity Length			1.5		mm
Lifetime		100000	-	-	h
Electrical Specification					
Threshold Current	I_{th}	-	25	40	mA
Operating Current	I_{op}	-	220	250	mA
Slope Efficiency	η	0.8	0.9	-	W/A
Operating Voltage	U_{op}	-	1.6	2.0	V
Photodiode Current	I_{PD}	0.5	0.7	0.9	mA

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

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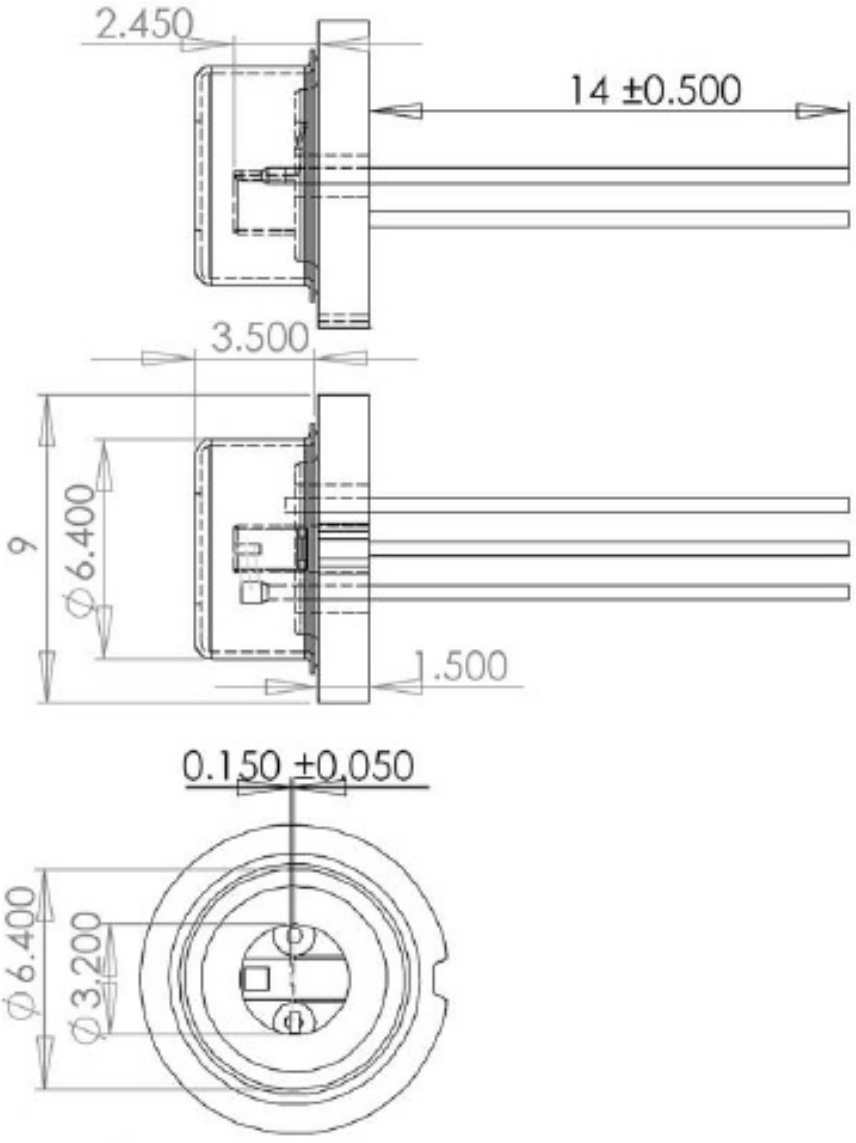
Package Dimensions

9 mm Package (*Unit:mm*)



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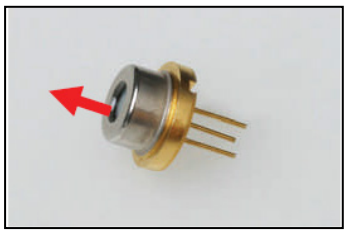
Safety of Laser light

- 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.

- **WARNING: Laser Diode is emitting invisible light**



Cautions

1. Operating method

- 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.