



# 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**

		Bottom V	Bottom View		
10	93	n-type		2	
12	7755	PIN	Function		
LD Y	→ PD	1	LD Anode	> + +	
		2	LD Cathode, PD Cathode	\ '\	3
		3	PD Anode		
•	02				

### Absolute Maximum Ratings ( $T_C=25$ °C)

Item	Symbol	Value	Unit
CW Output Power	Po	150	mW
Operating Case Temperature	T <sub>C</sub>	-20 +50	Ç
Storage Temperature	$T_{stg}$	-40 +80	Ç

### Specifications ( $T_C=25$ °C)

Item	Symbol	Min.	Тур.	Max.	Unit				
Optical Specification									
CW Output Power	Po	-	150	-	mW				
Kink Power	$P_{K}$		180		mW				
Peak Wavelength	$\lambda_{P}$	1059	1064	1069	nm				
Spectral Width (FWHM)	Δλ	-	0.5	2.0	nm				
Far Field (FWHM)	θ∥	-	8	10	deg				
rai rieiu (rvvnivi)	θ⊥	-	28	30	deg				
Emitting Aperature	WxH		5 x 1		μm				
Chip Cavity Length			1.5		mm				
Lifetime		100000	ı	-	h				
Electrical Specification									
Threshold Current	I <sub>th</sub>	-	25	40	mA				
Operating Current	l <sub>op</sub>	-	220	250	mA				
Slope Efficiency	η	0.8	0.9	-	W/A				
Operating Voltage	$U_op$	-	1.6	2.0	V				
Photodiode Current	I <sub>PD</sub>	0.5	0.7	0.9	mA				

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

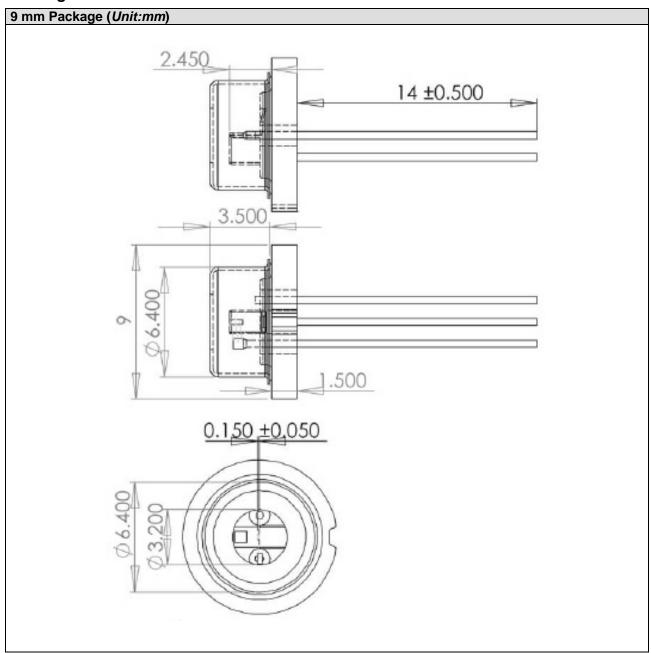


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## Package Dimensions







### 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.

