



## RLT83500G

### TECHNICAL DATA

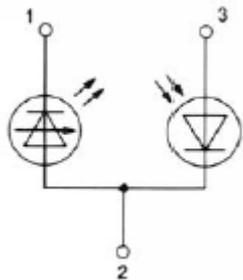


### High Power Infrared Laser Diode

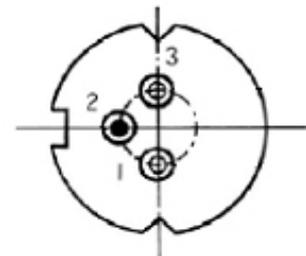
Lasing wavelength: **830 nm typ.**  
Max. optical power: **500 mW, cw**  
Emitting Aperture: **1x50  $\mu\text{m}^2$**   
Package: **9 mm**



### PIN CONNECTION:



- 1) Laserdiode cathode
- 2) Laserdiode anode and photodiode cathode
- 3) Photodiode anode

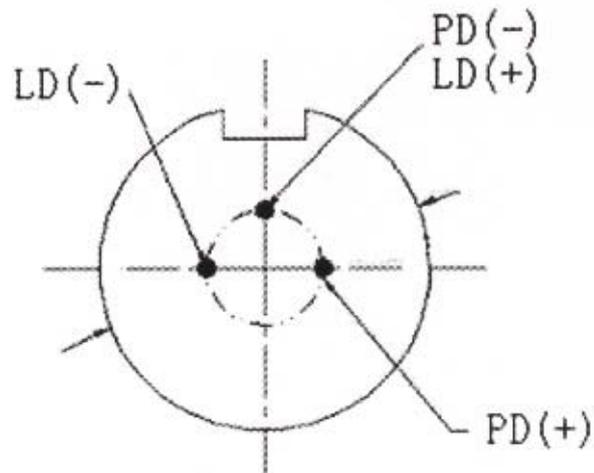
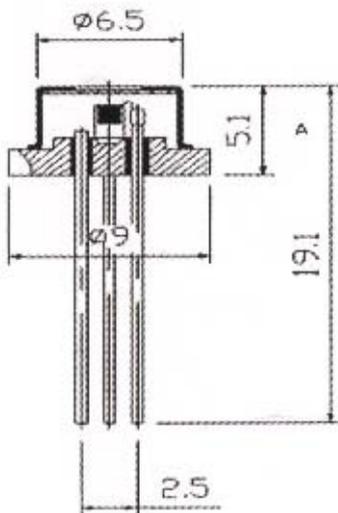


### Specification (Tc = 25°C)

CHARACTERISTIC	MIN	UNIT
Optical Output Power	0.5	W
Threshold Current	≤0.25	A
Operation Current	≤0.95	A
Operation Voltage	≤2.1	V
Slope Efficiency	≥0.80	W/A
Series Resistance	0.80	Ω
Central Wavelength	830 ±10	nm
Spectral Width	≤3	nm
Wavelength Temperature Coefficient	0.3	nm/°C
Beam Divergence	10	deg
Beam Divergence	40	deg
Monitor Current	400 – 1000	mA
Polarization	TE	
Reverse Voltage	2.0	V
Operating Temperature	10 - 30	°C
Storage Temperature	-10 – 70	°C



## PACKAGE DIMENSIONS:



## Operating notes:

1. Be sure that the operating current is not exceed the specified operating current, or else which will accelerate aging, shorten lifetime or even damage devices.
2. Increase the current gradually to the specified operating value. For shutting down the laser diode, please decrease the current to zero gradually, and then turn off the power. Pleaser sure that the power supply have no current overshoot at any time. The current overshoot can damage the laser diodes.
3. The high power laser diode is sensitive to the work temperature. The work temperature should be no more than 30°C. It is better if the temperature of the heat sink can be keep at 20°C.
4. Be careful to keep the facet cleaning. Contamination of facet will result in rapid degradation of devices.
5. The high power laser diode is very sensitive to static. Please caution about static during operating with the laser diode.
6. Caution! Don't look at the laser light directly, because it's harmful to eyes.
7. A clean, dry and ventilated environment should be available when storing and operation. Dew can damage the laser diodes.
8. The storage temperature is between -10 and 70°C.