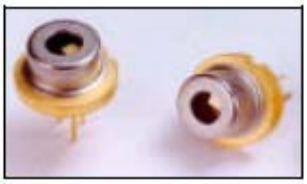
ROITHNER LASERTECHNIK
Wiedner Hauptstraße 76, A-1040 Vienna, Austria
Tel.: ++43 1 586 52 43-0, Fax -44, office@roithner-laser.com

RLT981000G

TECHNICAL DATA



High Power Infrared Laser Diode

Features

- CW Output Power: 1 W
- Typical 975 nm Emission Wavelength
- High-efficiency Quantum Well Structure
- TO5 Package

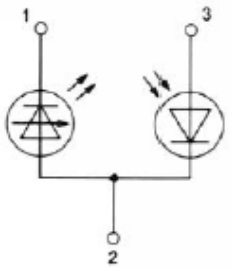
Applications

- Solid-state Laser Pumping
- Medical Usage
- Infrared Night Vision Light Sources
- Information to identify

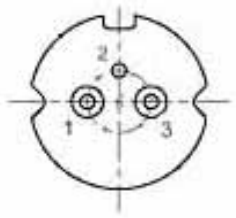


NOTE!
LASERDIODE
MUST BE COOLED!

PIN CONNECTION



1. Laserdiode cathode
2. Laserdiode anode and photodiode cathode
3. Photodiode anode



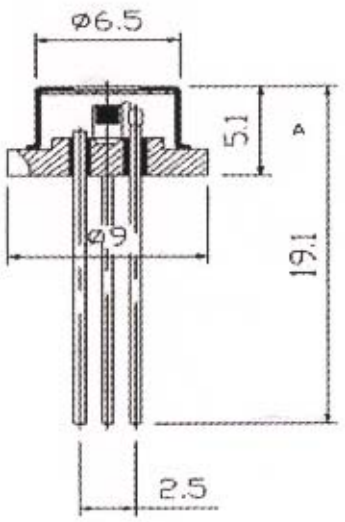
Specifications (25°C)

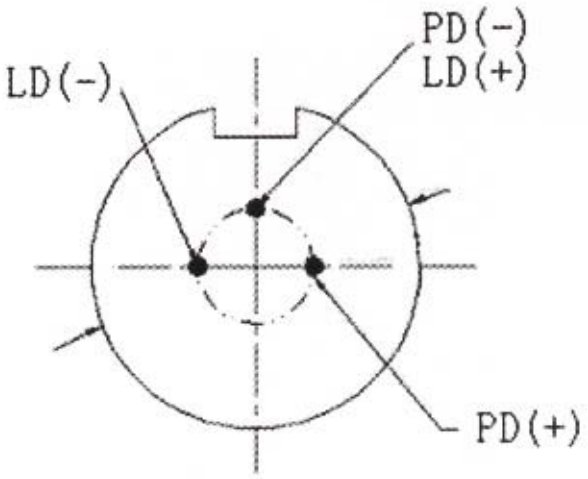
Type	RLT981000G	Unit
Optical Specification		
CW Output Power P_O	1	W
Peak Wavelength Δ	975±15	nm
Spectral Width Δλ	≤ 3.5	nm
Emitting Area	100x1	µm
Wavelength Temperature Coefficient	0.3	nm/°C
Beam Divergence $\theta_{\perp} \times \theta_{\parallel}$	48x10	Deg
Polarization	TE	
Electrical Specification		
Slope Efficiency E_S	≥ 0.7	W/A
Threshold Current I_{th}	≤ 0.35	A
Operation Current I_O	≤ 1.8	A
Operation Voltage V_f	≤ 2	V
Series Resistance R_d	≤ 0.5	Ω
Package Style	TO5	
Absolute Maximum Ratings		
Reverse Voltage V_r	2.0	V
Operating Temperature T_O	10 … 40	°C
Storage Temperature T_{stg}	-40 … 85	°C

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Package Dimensons

TO5 Package (*Unit:mm*)





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.