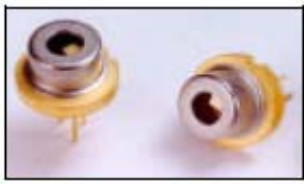
ROITHNER LASERTECHNIK
Wiedner Hauptstraße 76, A-1040 Vienna, Austria
Tel.: ++43 1 586 52 43-0, Fax -44, office@roithner-laser.com

RLT1550-40G



TECHNICAL DATA

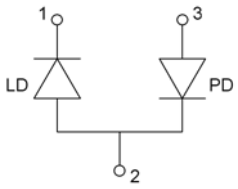
Infrared Laser Diode

Features

- Lasing Mode Structure: Single mode
- Peak Wavelength : typ. 1550 nm
- Optical Ouput Power: 40 mW
- Package: 9 mm

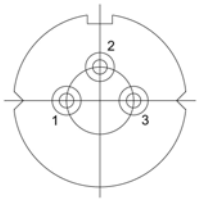
Electrical Connection

Pin Configuration	Bottom View



n-type

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



Typical Characteristics

Characteristics	Symbols	Values	Unit
CW Output Power	P_{op}	40	mW
Operating regime		CW	
Center Wavelength	λ_C	1550 +/- 10	nm
FWHM Beam Divergence	$\theta_{\parallel}$	8	deg
	$\theta_{\perp}$	45	deg
Operating Voltage	U_{op}	<2	V
Monitor Voltage	U_m	<5	V
Operating Temperature	T_{op}	25	°C
Package		9 mm	

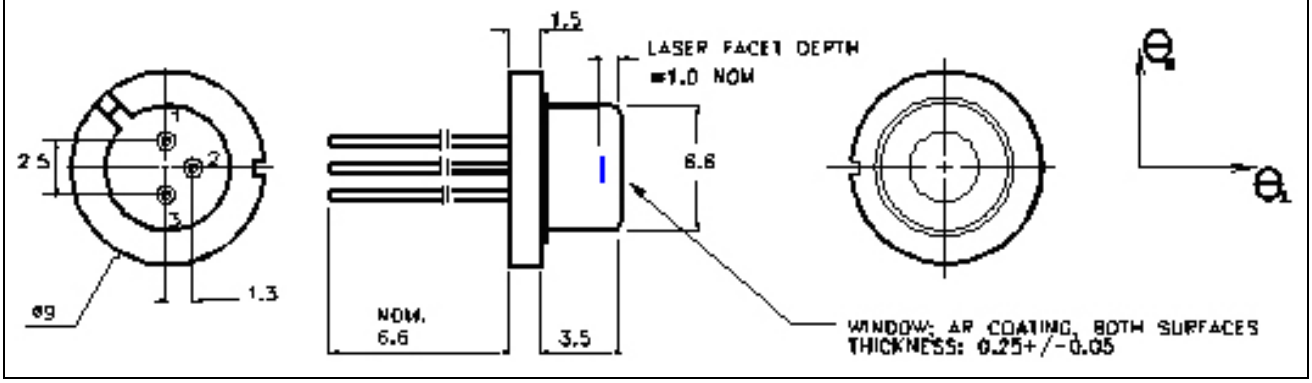
Technical Parameters of stocked samples

Sample No.	Threshold current I_{th} [mA]	Operating current I_{op} [mA]	Monitor current I_m [µA]	Peak wavelength at P_{op} λ_{op} [nm]
1-V417	40	189	294	1565
2-V417	42	192	82	1567
3-V417	37	184	232	1566
4-V417	37	193	334	1566
6-V417	37	189	67	1567
12-V417	34	163	170	1563
14-V417	34	164	176	1564
15-V417	37	171	176	1567
16-V417	32	170	365	1564
17-V417	35	171	142	1565

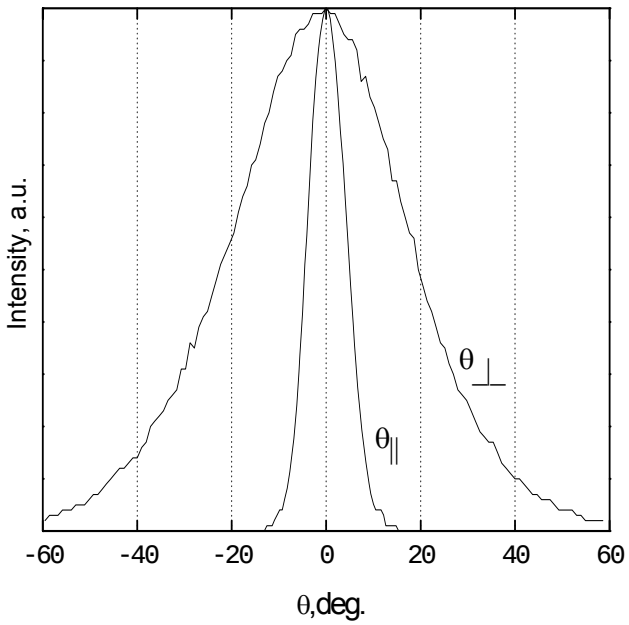
ROITHNER LASERTECHNIK
Wiedner Hauptstraße 76, A-1040 Vienna, Austria
Tel.: ++43 1 586 52 43-0, Fax -44, office@roithner-laser.com

Package Dimensons

9 mm Package (*Unit:mm*)



Typical beam divergence



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

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.

Cautions

1. Operating methode

- This LD shall change its forward voltage requirement and optical ouput power according to temperature change. Also, the LD will require more operation current to maintain same ouput power as it degrades. In order to maintain output power, use of APC (Automatic Power Control) is recommended. Which use monitor feedback to adjust the operation current.
- Confirm that electrical spike current generated by swithing on and off does not exceed the maximum operating current level specified herein above as absolute maximum rating. Also, employ appropriat 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 handeling 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 striclty below absolute maximum rating.