ROITHNER LASERTECHNIK GmbH
WIEDNER HAUPTSTRASSE 76 1040 VIENNA AUSTRIA
TEL. +43 1 586 52 43 -0, FAX. -44, OFFICE@ROITHNER-LASER.COM

RLT1550-500HHL

TECHNICAL DATA

High Power Infrared Laser Diode

Features

- 500 mW CW Ouput Power
- 1.52 – 1.58 µm Emission Wavelength
- InGaAsP/InP index-guided heterostructures
- Wide operating temperature range
- High ouput power stability

Applications

- Medical Usage
- Scientific and research

Absolute Maximum Ratings

Laser Diode	
CW Ouput Power	600 mW
Operating Current	4.0 A
Monitor Photodiode	
Reverse Voltage	9.0 V
PD Current	1.0 mA
Thermistor	
Operating Current	0.1 mA
Voltage Drop	10 V

Thermocooler	
Forward Current	5.0 A
Forward Voltage	3.8 V
Environment	
Operating Temperature Range	0 … +40
Storage Temperature Range	-40 … +70
Assembly	
Lead Soldering Temperature	200 °C
Lead Soldering Time	3.0 sec

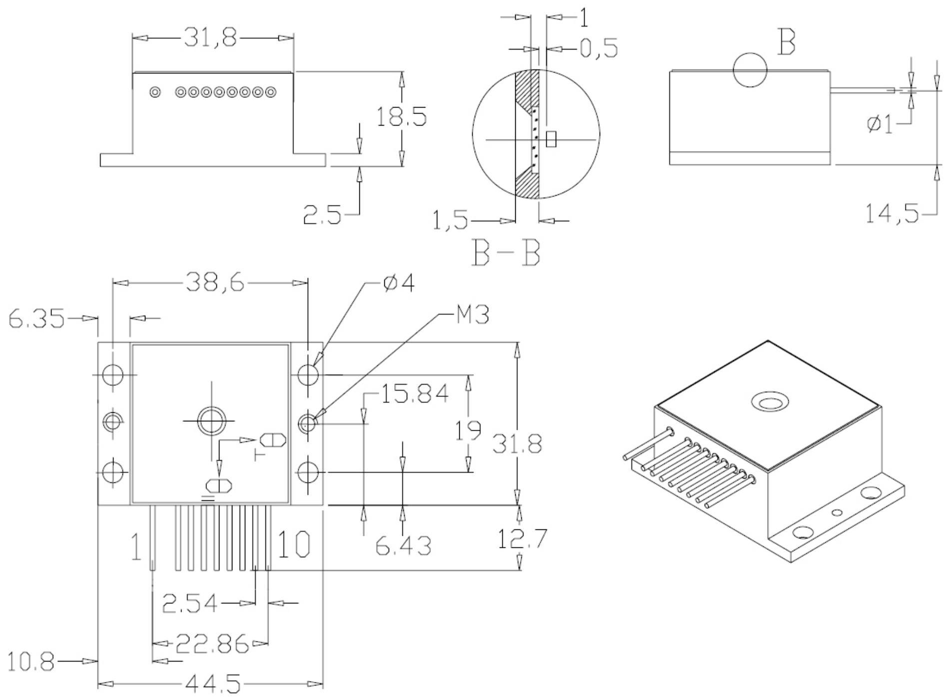
Specifications (25°C)

Item	Symbol	Min.	Typ.	Max.	Unit
Laser Diode					
CW Output Power	P_O	-	500	-	mW
Emitting area	W x H	-	100 x 1	-	µm
Wavelength	λ	1520	1550	1580	nm
Threshold Current	I_{TH}	-	-	700	mA
Operating Current	I_F	-	-	3.75	A
Operating Voltage	U_F	-	-	2.0	V
Beam Divergence	$\theta_\perp \times \theta_\parallel$	-	2 x 10	-	deg
Spectral Width (FWHM)	$\Delta\lambda$	-	-	10	nm
Mode Structure			MM		
Monitor Photodiode					
Monitor Current	I_{PD}	-	>20	-	µA
Sensitivity	S	-	>0.2	-	µA / mW
Reverse Voltage	U_{PD}	-	5.0 ± 0.5	-	V
Thermocooler					
Operation Current	I_{OP}	-	-	1.5	A
Operation Voltage	V_{OP}	-	6	7	V
Thermistor					
Thermistor Resistance	R_{TR}	-	10	-	kΩ

ATTENTION
OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC SENSITIVE DEVICES

Package Dimensons

HHL Package (*Unit:mm*)



PIN	Funciton
1	TEC (-)
2	
3	
4	LD Anode (+)
5	Thermistor (2)
6	Thermistor (1)
7	LD Cathode (-)
8	PD Anode (+)
9	PD Cathode (-)
10	TEC (+)