



## LDS-1310-005-BL

### TECHNICAL DATA



### Infrared Laser Diode

#### Features

- Output Power: 5 mW
- Typical 1310 nm Emission Wavelength
- Single mode
- High Reliability, High Efficiency

#### Applications

- Optical Fiber Communication
- Free-space Optical Communication

#### Specifications (25°C)

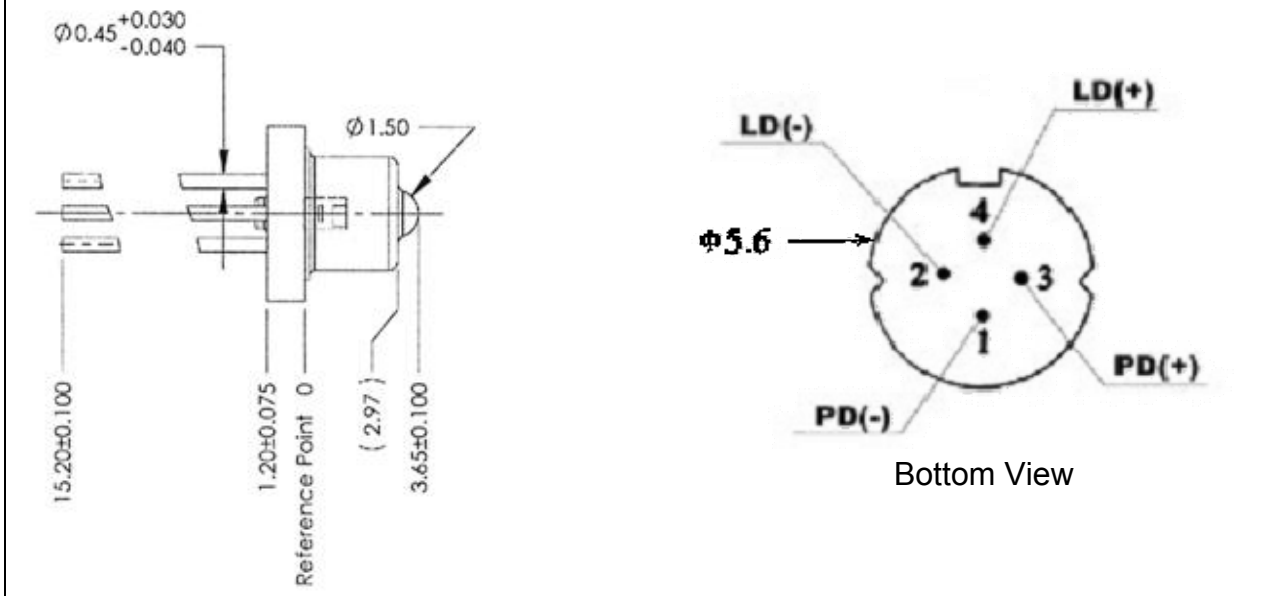
Item	Symbol	Min.	Typ.	Max.	Unit
<b>Optical Specifications</b>					
CW Output Power	$P_O$	-	5	-	mW
Center Wavelength	$\lambda_C$	1290	1310	1330	nm
Spectral Width	$\Delta\lambda$	-	$\leq 3.0$	-	nm
Emitting area	W x H	-	4 x 1	-	$\mu\text{m}$
Wavelength Temperature Coefficient		-	0.35	-	nm/°C
Beam Divergence	$\theta_{\perp} \times \theta_{\parallel}$	-	40x20	-	Deg
Polarization		TE			
<b>Electrical Specifications</b>					
Slope Efficiency	$E_S$		$> 0.2$		W/A
Threshold Current	$I_{TH}$	-	$\leq 15$	-	mA
Operating Current	$I_F$	-	$\leq 40$	-	mA
Operating Voltage	$U_F$	-	$\leq 1.5$	-	V
Series Resistance	$R_D$	-	$\leq 8$	-	$\Omega$
Monitor Current	$I_{PD}$	-	$\geq 100$	-	$\mu\text{A}$
Package Style		TO18			
<b>Absolute Maximum Ratings</b>					
Reverse Voltage	$U_R$	2.0			V
Operating Temperature	$T_{OP}$	+10 ... +30			°C
Storage Temperature	$T_{STG}$	-40 ... +85			°C



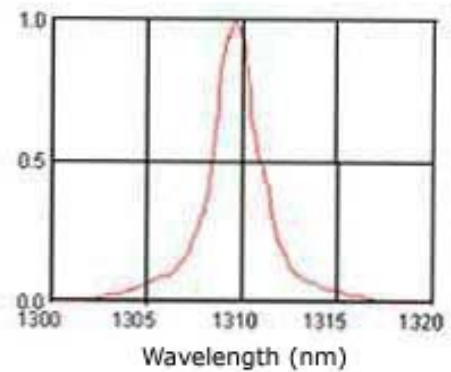
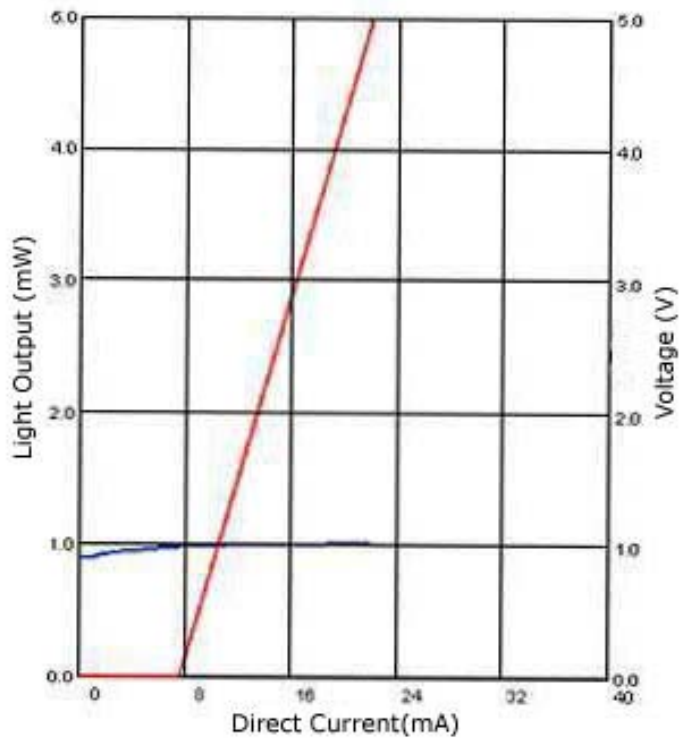


## Package Dimensions

### TO18 Package (Unit:mm)



## Typical Performance Curves





# ROITHNER LASERTECHNIK

Wiedner Hauptstraße 76, A-1040 Vienna, Austria

Tel.: ++43 1 586 52 43-0, Fax -44, office@roithner-laser.com



## Notes

1. High power laser diodes are high energy laser devices. It is harmful to human body and health. Never look directly into the laser output port.
2. High power laser diodes could operate in forward voltage. The reverse current and voltage should not be higher than 25 $\mu$ A and 3V, respectively.
3. Heavy humidity can get dew on the LD then damage the LD.
4. The generated heat must be removed in time when the LD working.
5. The high temperature will effect the performance of the products. The lifetime can also be shortened by high temperature.
6. The operating current and optical power of laser must not be higher than the given rate current and power. The excessive current would accelerate aging and shorten lifetime, even damage the LD.
7. The semiconductor laser diode is a sensitive electronic device. Please observe precaution for handling electrostatitic sensitive devices.