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

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

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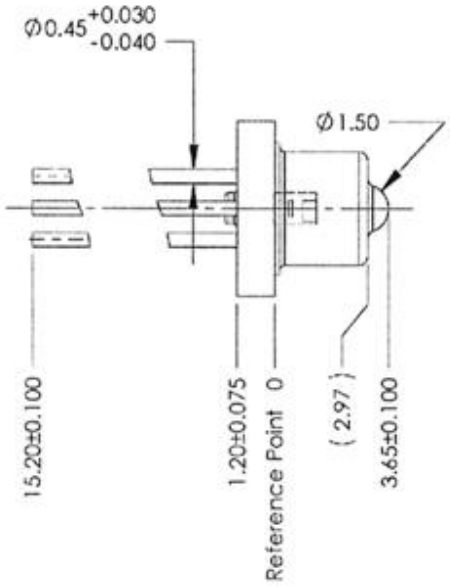
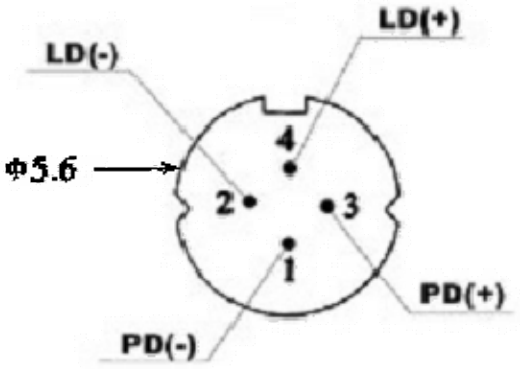
Package Dimensons

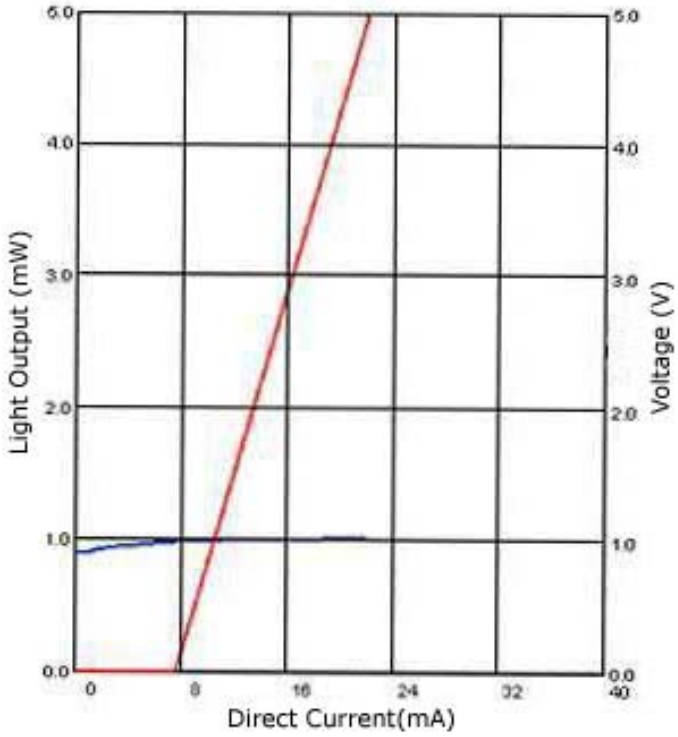
TO18 Package (*Unit:mm*)

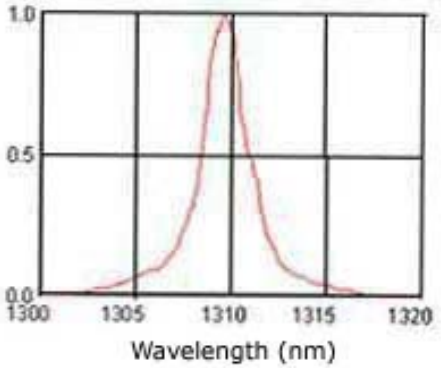




Bottom View

Typical Performance Curves





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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 25μA 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.