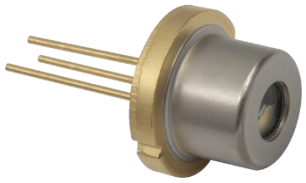
960 nm Fabry-Perot Laser Diode, 250 mW

L960H1



Description

The L960H1 960 nm Fabry-Perot single spatial mode laser diode is based on quantum well epitaxial layer growth and a highly reliable ridge waveguide structure. This diode features high optical output power and slope efficiency. The L960H1 Ø9 mm TO-can package discrete laser diode is a compact light source suited to many applications.

Specifications

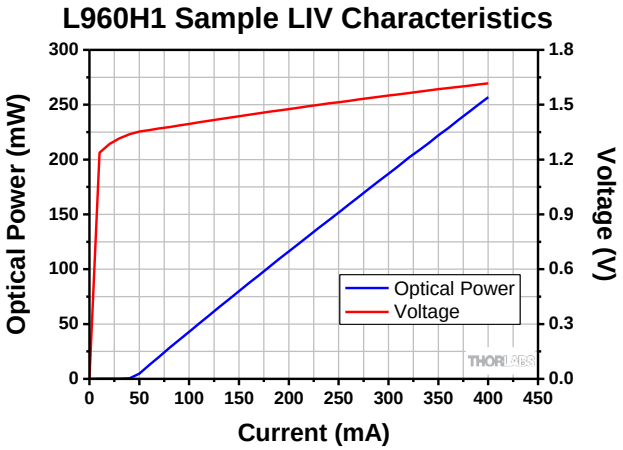
Absolute Maximum Ratings[a]	
LD Reverse Voltage (Max)	2 V
Absolute Max Current	430 mA
Absolute Max Power	260 mW
Operating Case Temperature	20 to 50 °C
Storage Temperature	-10 to 65 °C
Pin Code	H

a. Please note that exceeding the absolute maximum ratings above may cause damage to the device.

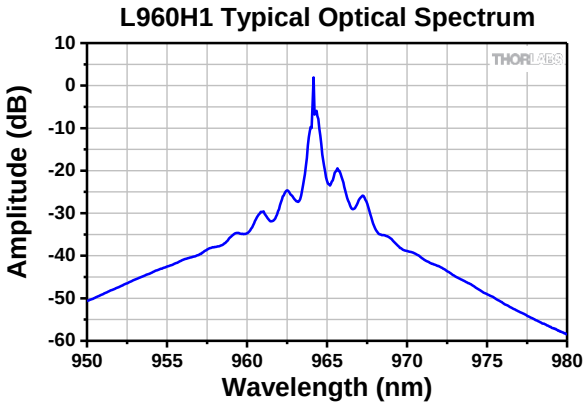
L960H1[a]				
	Symbol	**Min**	**Typical**	**Max**
Center Wavelength	λ_C	950 nm	960 nm	970 nm
Spectral Bandwidth (RMS)	$\Delta\lambda$	-	0.5 nm	2 nm
Output Power CW @I_{OP}	P_{CW}	240 mW	250 mW	-
Threshold Current	I_{TH}	-	45 mA	70 mA
Operating Current CW	I_{OP}	-	400 mA	430 mA
Slope Efficiency	$\Delta P/\Delta I$	-	0.70 W/A	-
Forward Voltage	V_F	-	2.1 V	2.5 V
Vertical Beam Divergence Angle (FWHM)[b]	θ_V	-	12°	22°
Lateral Beam Divergence Angle (FWHM)[b]	θ_L	-	11°	13°

a. T_{case} = 25°C
b. CW at 400 mA

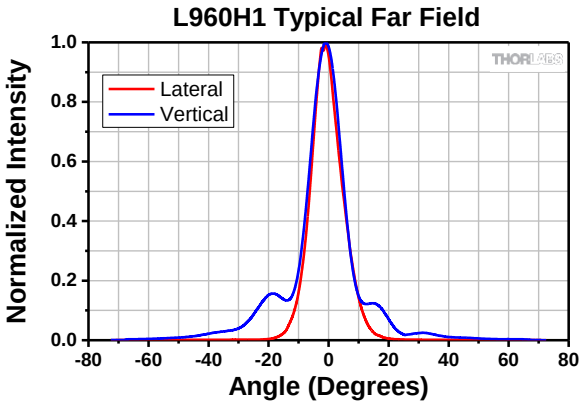
Typical Performance Plots



Typical L-I-V at 25 °C

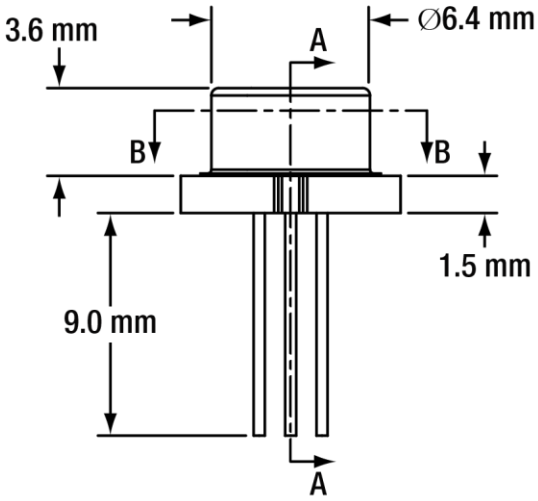


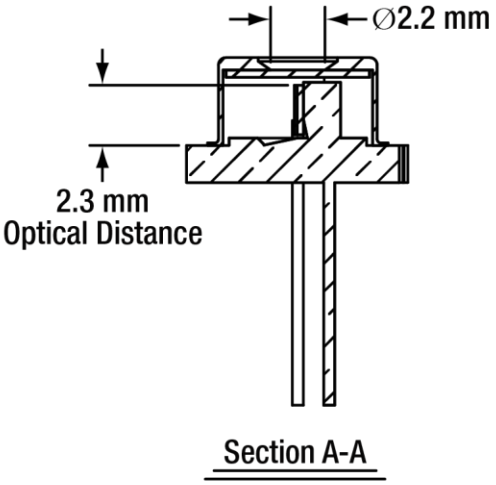
Typical Optical Spectrum at I = 400 mA



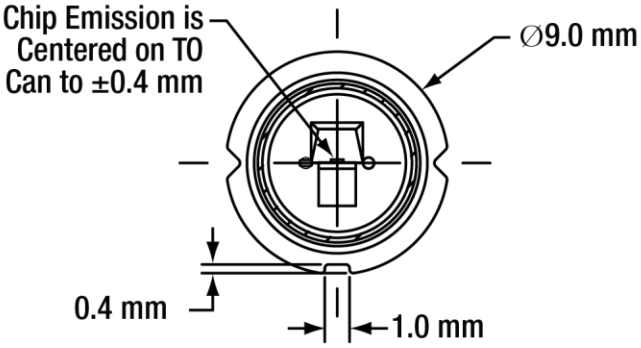
L960H1 Typical Far Field Pattern

Drawing

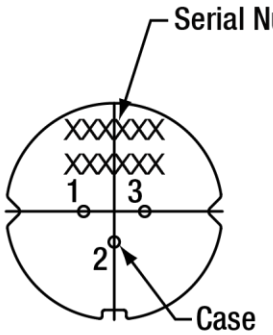




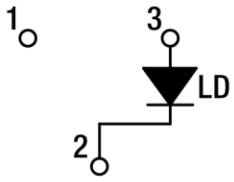
Section A-A



Section B-B



Bottom View



Pin Code H