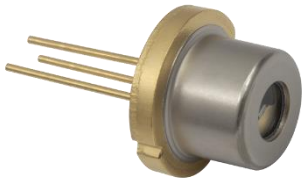
# 852 nm Fabry-Perot Laser Diode, 300 mW

**L852H1**



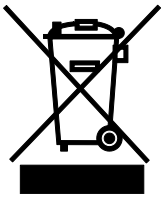
## Description

The L852H1 852 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 L852H1 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** | 415 mA |
| **Absolute Max Power** | 310 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.

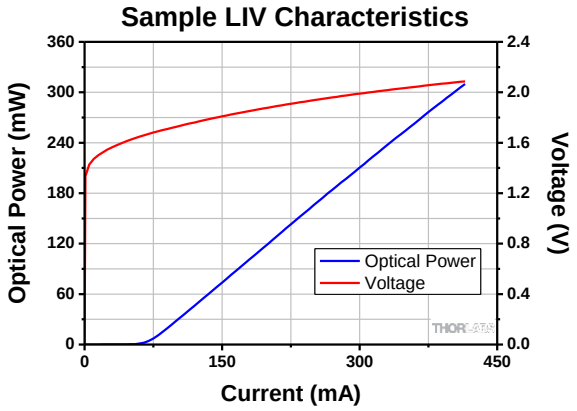


| Optical Electrical Characteristics[a] | | | | |
|---|---|---|---|---|
| | **Symbol** | **Min** | **Typical** | **Max** |
| **Center Wavelength** | $\lambda_C$ | 842 nm | 852 nm | 862 nm |
| **Spectral Bandwidth (RMS)** | $\Delta\lambda$ | - | 0.5 nm | 2 nm |
| **Output Power CW @ $I_{OP}$** | $P_{CW}$ | 290 mW | 300 mW | - |
| **Threshold Current** | $I_{TH}$ | - | 72 mA | 90 mA |
| **Operating Current CW** | $I_{OP}$ | - | - | 415 mA |
| **Slope Efficiency** | $\Delta P/\Delta I$ | - | 0.9 W/A | - |
| **Forward Voltage** | $V_F$ | - | 2.0 V | 2.5 V |
| **Vertical Beam Divergence Angle (FWHM)[b]** | $\theta_V$ | - | 15° | 22° |
| **Lateral Beam Divergence Angle (FWHM)[b]** | $\theta_L$ | - | 7° | 10° |

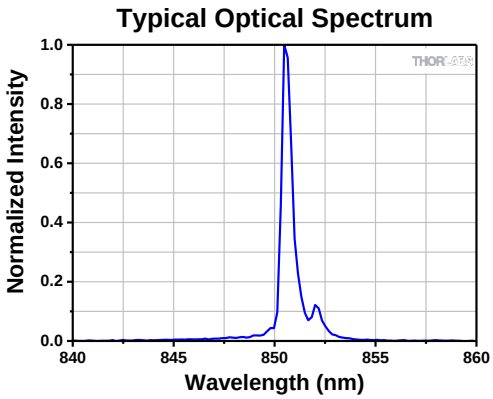
a. $T_{case}$= 25°C

b. CW at 300 mA

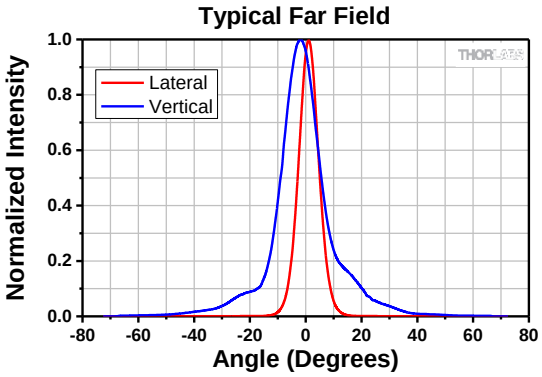
# Typical Performance Plots




The data above was measured at 25 °C.

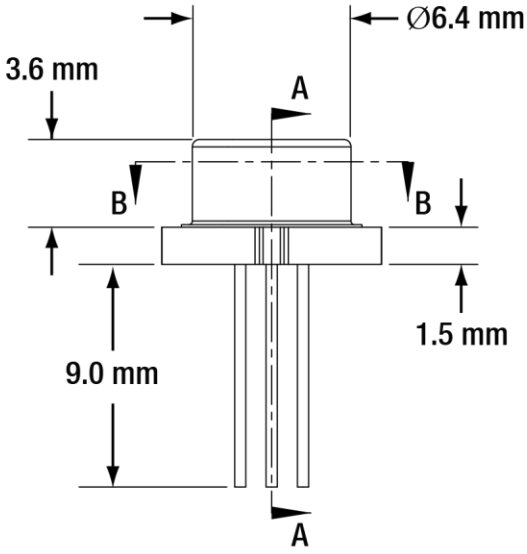


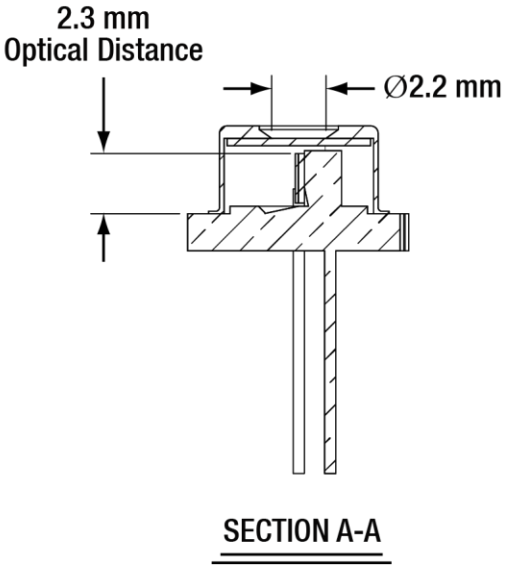

The data was obtained using the CCS175 Compact Spectrometer and the laser diode held at 25 °C.



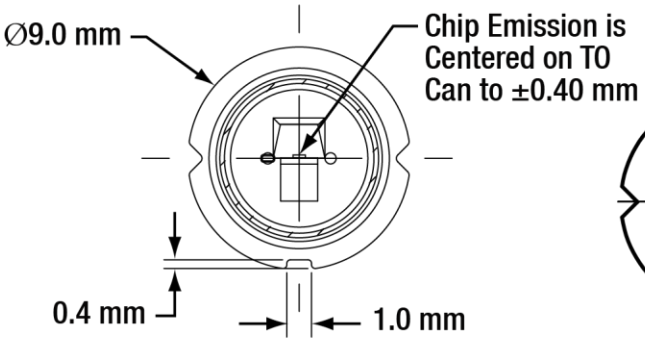

The data above was measured at 25 °C.

## Drawing

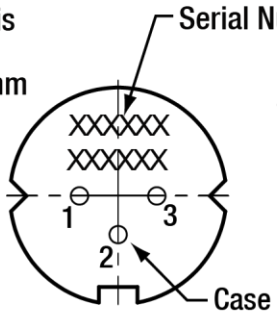


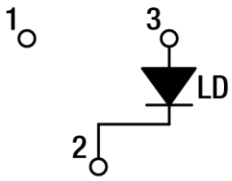

SECTION A-A




SECTION B-B




Bottom View




Pin Code H