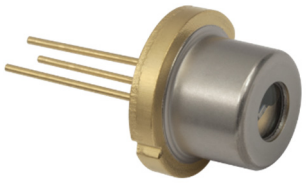
980 nm Fabry-Perot Laser Diode, 200 mW

L980H1



Description

The L980H1 980 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 L980H1 Ø9 mm TO-can package discrete laser diode is a compact light source suited to many applications.

Specifications

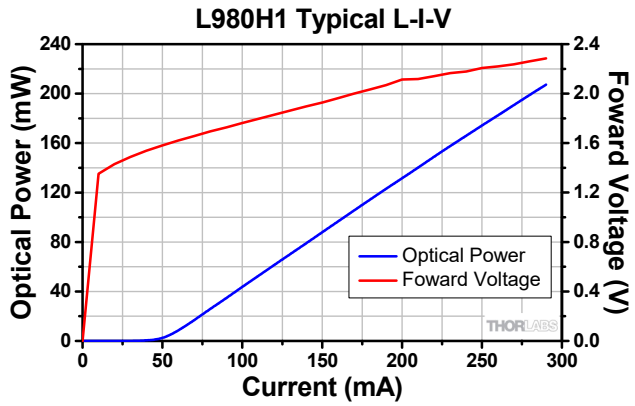
Absolute Maximum Ratings[a]	
LD Reverse Voltage (Max)	2 V
Absolute Max Current	300 mA
Absolute Max Power	210 mW
Operating Case Temperature	20 to 50 °C
Storage Temperature	-10 to 65 °C
Pin Code	H

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

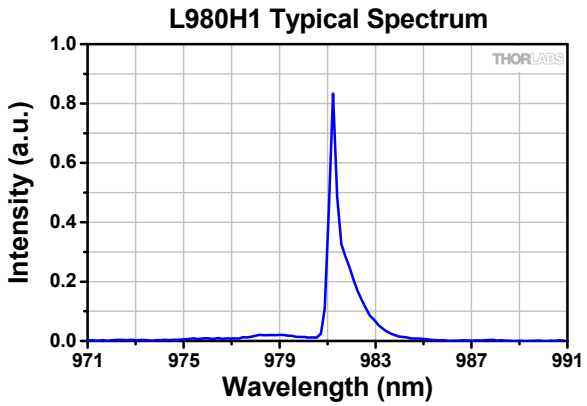
L980H1[a]				
	Symbol	**Min**	**Typical**	**Max**
Center Wavelength	λ_C	970 nm	980 nm	990 nm
Spectral Bandwidth (RMS)	$\Delta\lambda$	-	0.5 nm	2 nm
Output Power CW @I_{OP}	P_{CW}	190 mW	200 mW	-
Threshold Current	I_{TH}	-	55 mA	70 mA
Operating Current CW	I_{OP}	-	-	300 mA
Slope Efficiency	$\Delta P/\Delta I$	-	0.85 W/A	-
Forward Voltage	V_F	-	2.0 V	2.5 V
Transverse Beam Divergence Angle (FWHM)[b]	θ_T	-	13°	22°
Lateral Beam Divergence Angle (FWHM)[b]	θ_L	-	8°	10°

a. T_{case}= 25°C
b. CW at 300 mA

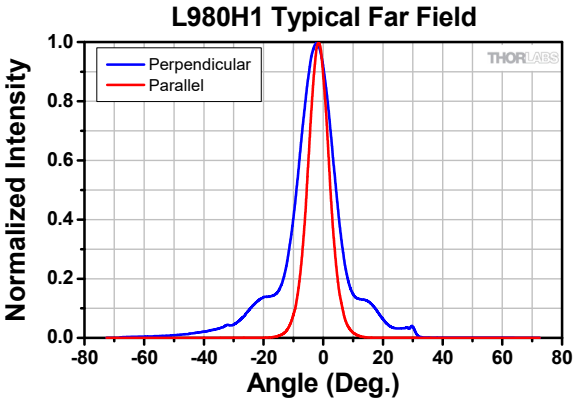
Typical Performance Plots



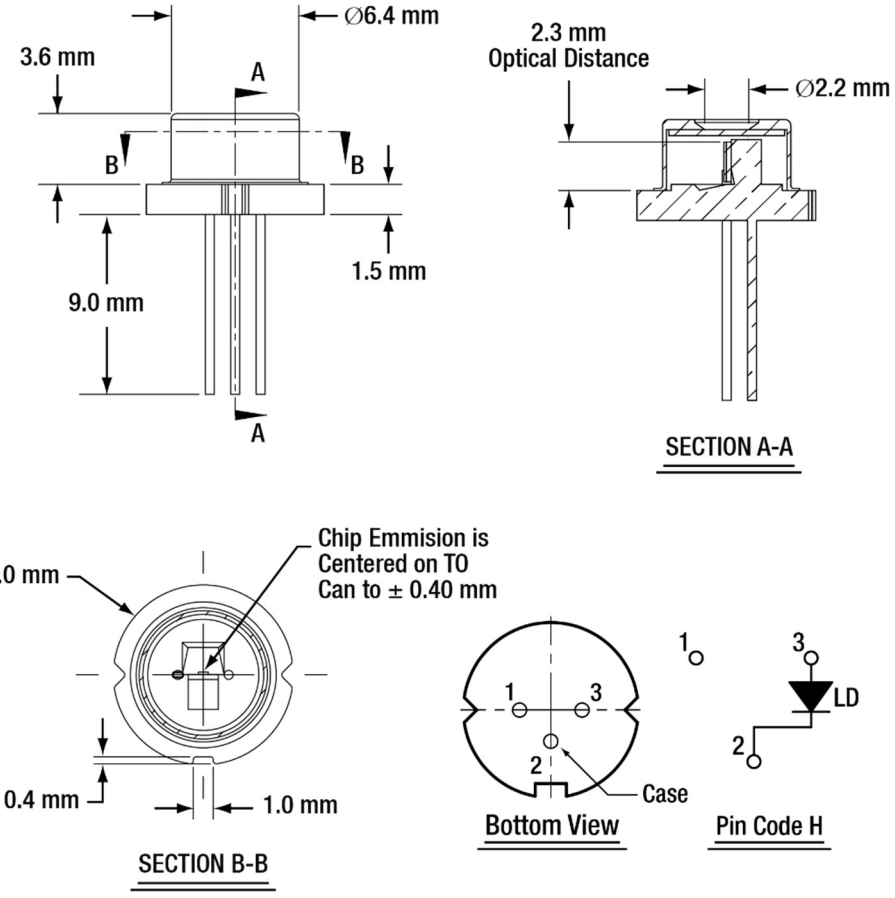
The data above was measured at 25 °C.



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



Drawing


Ø6.4 mm
3.6 mm
A
B
B
1.5 mm
9.0 mm
A
2.3 mm
Optical Distance
Ø2.2 mm
SECTION A-A
Chip Emmision is
Centered on TO
Can to ± 0.40 mm
Ø9.0 mm
0.4 mm
1.0 mm
SECTION B-B
1
3
2
Case
Bottom View
1
3
LD
2
Pin Code H