



L1450G1

Description

This 1450 nm, 2.0 W high-power InP laser diode has a multi-transverse-mode output. This source is suited to many applications, including LIDAR, aerospace, and illumination. It is packaged in a Ø9.0 mm TO can with a G pin configuration. This laser is compatible with our line of laser diode and TEC controllers as well as our selection of laser diode mounts and collimation solutions. It is recommended to have the base of the TO package in good thermal contact with a low thermal resistance heat sink.

Specifications

Absolute Maximum Ratings ^a		
Specification	Symbol	Maximum
Output Power, CW	P_{\max}	3.2 W
LD Reverse Voltage	V_{reverse}	2.0 V
Operating Case Temperature	T_{op}	10 to 30 °C
Storage Temperature	T_{stor}	-20 to 80 °C

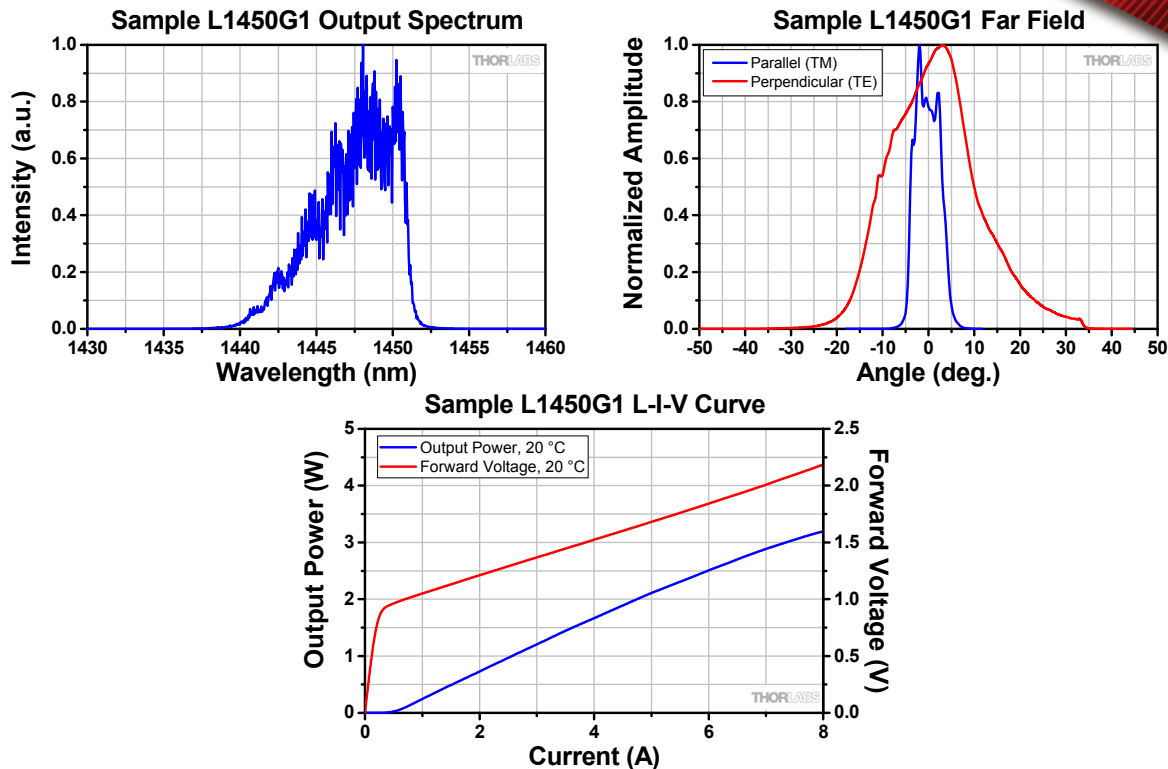
- a. Absolute Maximum Rating specifications should never be exceeded. Operating at or beyond these conditions can permanently damage the laser.



L840P200 Specifications ^b				
Specification	Symbol	Min	Typical	Max
Center Wavelength @ P_{op}	λ_o	1430 nm	1450 nm	1470 nm
Output Power, CW	P_{op}	-	2.0 W	-
Threshold Current	I_{TH}	-	520 mA	-
Operating Current CW @ P_{op}	I_{op}	-	5.0 A	8.0 A
Operating Voltage @ P_{op}	V_{op}	-	1.4 V	-
Slope Efficiency	η	-	0.45 W/A	-
Beam Divergence (FWHM) @ P_{op}	Parallel	θ_{\parallel}	7°	-
	Perpendicular	θ_{\perp}	22°	-

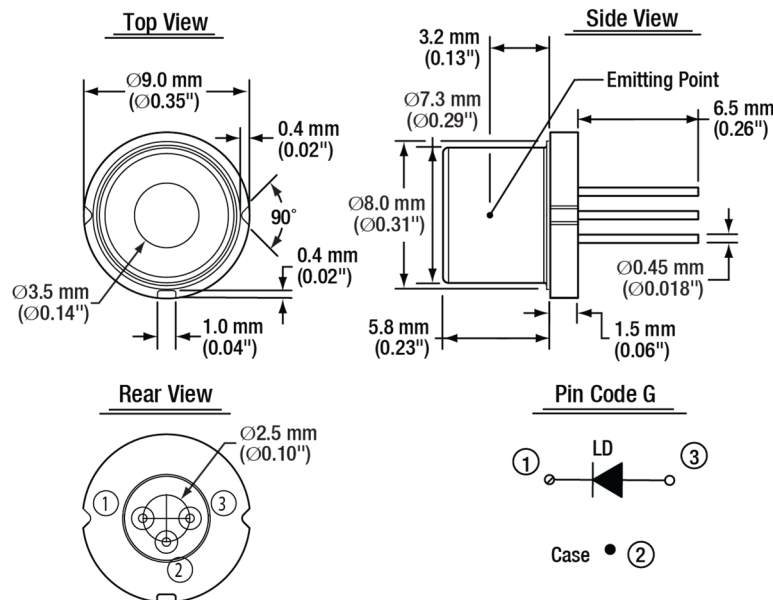
- b. $T_{\text{CASE}} = 20\text{ °C}$, CW

Performance Plots



The data presented here is for one particular laser diode. Slight variations in performance data will occur from device to device. The sample spectrum and L-I-V spectrum of the L1450G1 laser diode was taken at 20 °C. The far field was measured at a distance of 7" from the diode.

Drawings



Pin	Description
1	Laser Cathode
2	Case Common
3	Laser Anode