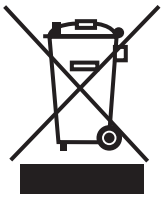
1575 nm Laser Diode, 1.7 W

L1575G1

Description

This 1575 nm, 1.7 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



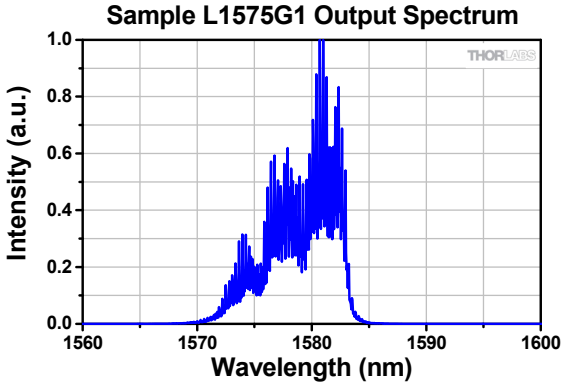
Absolute Maximum Ratings[a]		
Specification	**Symbol**	**Maximum**
Output Power, CW	P_{max}	2.5 W
LD Reverse Voltage	$V_{reverse}$	2.0 V
Operating Case Temperature	T_{op}	10 to 30 °C
Storage Temperature	T_{stor}	-20 to 80 °C

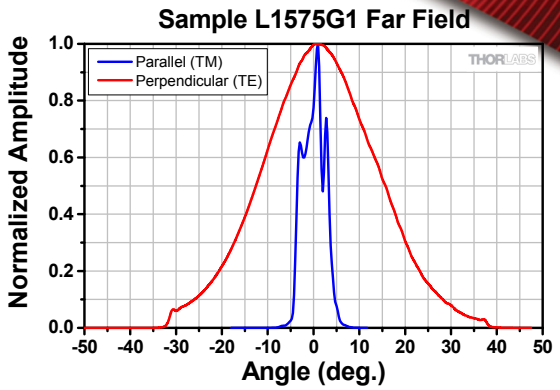
a. Absolute Maximum Rating specifications should never be exceeded. Operating at or beyond these conditions can permanently damage the laser.

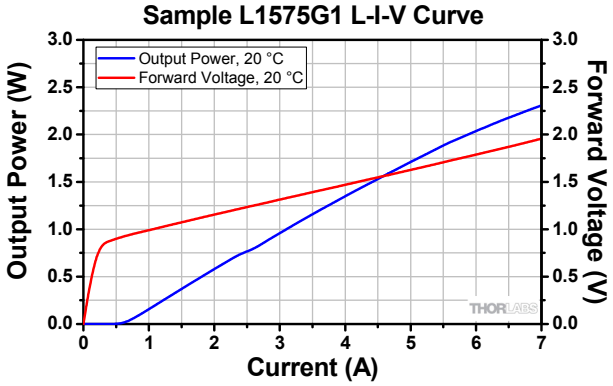
L840P200 Specifications[b]					
Specification		**Symbol**	**Min**	**Typical**	**Max**
Center Wavelength @ P_{op}		λ_o	1555 nm	1575 nm	1595 nm
Output Power, CW		P_{op}	-	1.7 W	-
Threshold Current		I_{TH}	-	640 mA	-
Operating Current CW @ P_{op}		I_{op}	-	5.0 A	8.0 A
Operating Voltage @ P_{op}		V_{op}	-	1.5 V	-
Slope Efficiency		η	-	0.36 W/A	-
Beam Divergence (FWHM) @ P_{op}	**Parallel**	$\theta_{\parallel}$	-	6°	-
	Perpendicular	$\theta_{\perp}$	-	28°	-

b. T_{CASE} = 20 °C, CW

Performance Plots

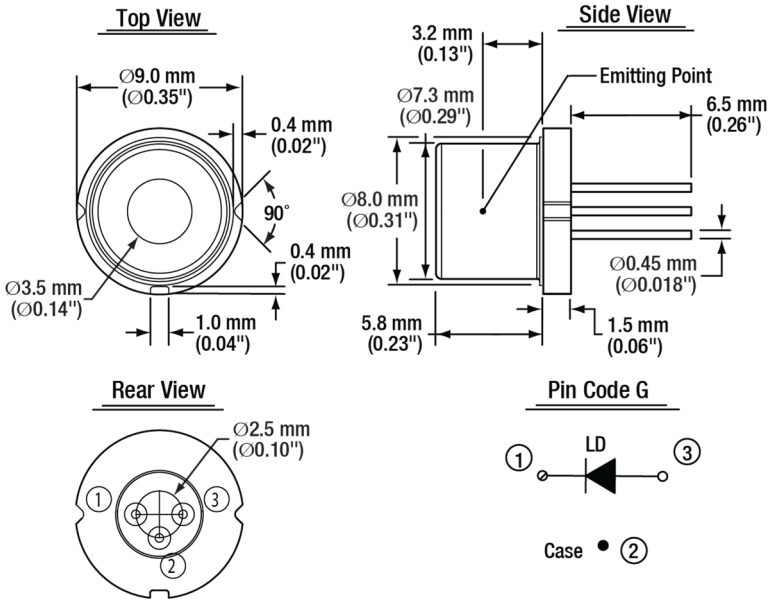






The data presented here is for one particular laser diode. Slight variations in performance data will occur from device to device. The sample spectrum and L-I-V spectrum of the L1575G1 laser diode was taken at 20°C. The far field was measured at a distance of 7" from the diode.

Drawings



Pin	Description
1	Laser Cathode
2	Case Common
3	Laser Anode