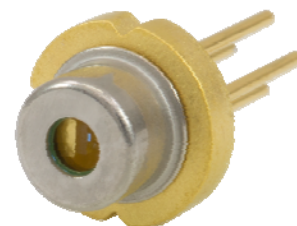


473 nm Laser Diode, 100 mW

L473P100



Description

Thorlabs' 473 nm, 100 mW laser diode is suited for a variety of applications. Packaged in a Ø5.6 mm TO can with an F+ pin configuration. The laser diode package contains a Zener diode to reduce the likelihood of damage to the laser diode from small levels of ESD and reverse potential on the laser diode. It is recommended to have the base of the laser diode in good thermal contact with a heat sink.

Specifications

Absolute Maximum Ratings ^a		
Specification	Symbol	Maximum
Output Power, CW	P_{\max}	120 mW
LD Reverse Current	I_{reverse}	85 mA
PD Reverse Voltage	$V_R(\text{PD})$	5 V
Operating Case Temperature	T_{op}	0 to +60 °C
Storage Temperature	T_{stor}	-40 to +85 °C

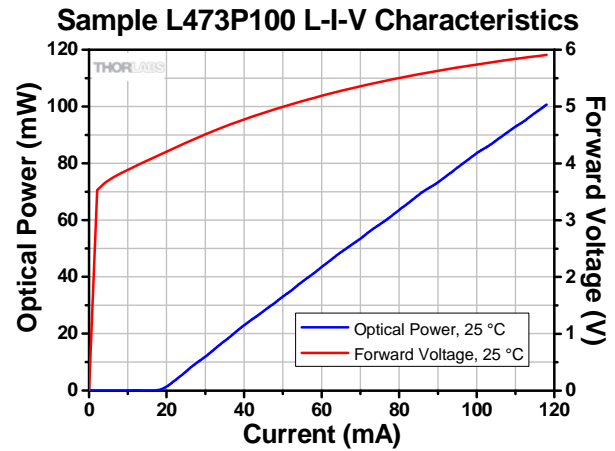
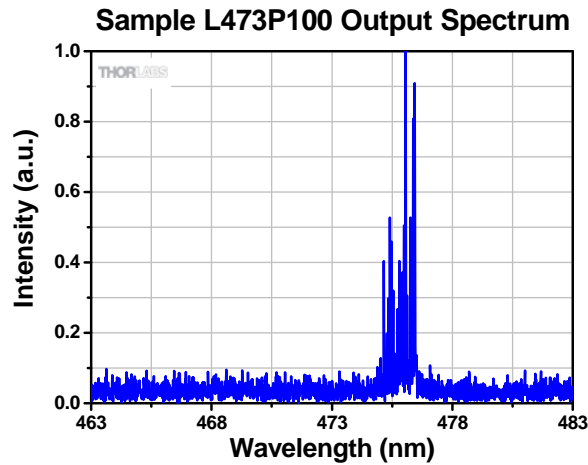
- a. Absolute Maximum Rating specifications should never be exceeded. Operating at or beyond these conditions can permanently damage the laser.



L473P100 Specifications					
Specification		Symbol	Min	Typical	Max
Center Wavelength @ P_{op}		λ_o	468 nm	473 nm	478 nm
Output Power, CW		P_{op}	-	100 mW	-
Threshold Current		I_{TH}	-	20 mA	45 mA
Operating Current CW @ P_{op}		I_{op}	-	120 mA	150 mA
Operating Voltage @ P_{op}		V_{op}	5.0	5.7 V	6.5 V
Slope Efficiency		η	0.8 W/A	1.0 W/A	-
Monitor PD Current @ P_{op}		I_{mon}	0.2 mA	1.0 mA	2.0 mA
Beam Divergence (FWHM) @ P_{op}	Parallel	θ_{\parallel}	8°	10°	12°
	Perpendicular	θ_{\perp}	20°	24°	27°
Off-Axis Deviation @ P_{op}	Parallel	$\Delta\theta_{\parallel}$	-3°	-	3°
	Perpendicular	$\Delta\theta_{\perp}$	-3°	-	3°

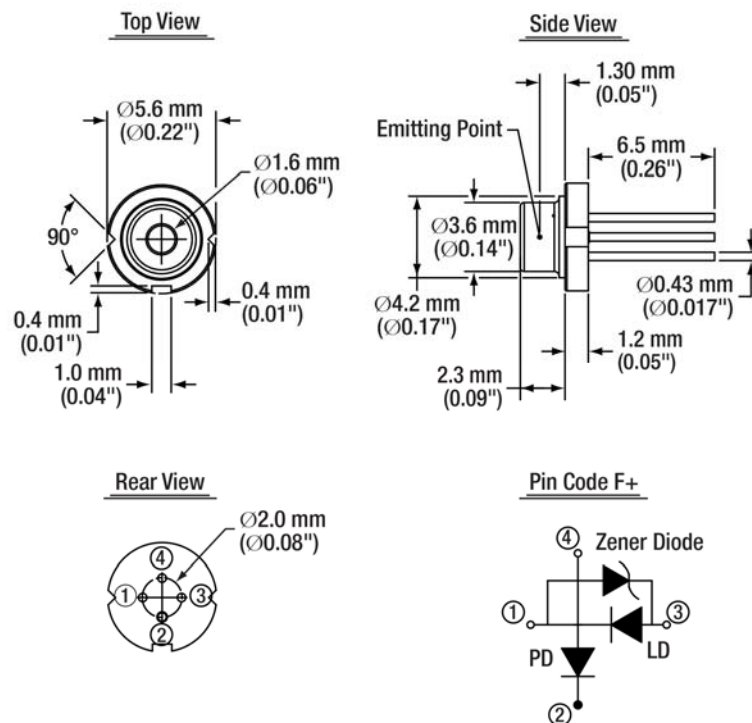
$T_{\text{CASE}} = 25^{\circ}\text{C}$, CW

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 of the L473P100 laser diode was taken at 25 °C, using a Thorlabs OSA201C Spectrum Analyzer with resolution of 7.5 GHz. The L-I-V characteristics data was taken at 25 °C. Please visit our website for the raw data.

Drawings



Pin	Description
1	Laser Cathode
2	Monitor PD Cathode (Case)
3	Laser Anode
4	Monitor PD Anode