505 nm, 30 mW Laser Diode

L505P30

Description

This 505 nm, 30 mW laser diode is a high efficiency compact light source. It is suited for a wide variety of applications that include excitation, bioanalytical, photolithography, holography and flow cytometry. It comes in a TO-56 package with an E pin configuration. This laser diode is compatible with our line of laser diode mounts as well as our TEC and laser driver controllers.

Specifications

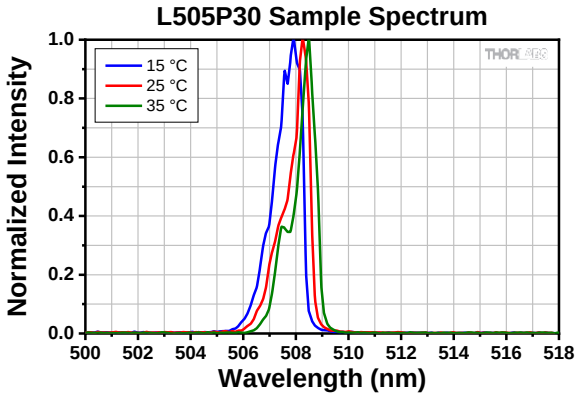
Absolute Maximum Ratings[a]		
	Symbol	**Maximum**
Operating Current	I_F	100 mA
Optical Power	P_o	35 mW
LD Reverse Voltage	V_R	2 V
Operating Case Temperature	T_{op}	-10 to 60 °C
Storage Temperature	T_{stor}	-40 to 85 °C

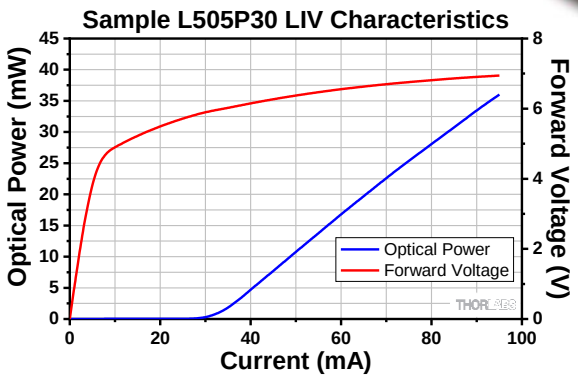
a. Absolute maximum rating specifications should never be exceeded. Operating at or beyond these conditions can permanently damage the laser.

L505P30 Specifications; T_{CASE} = 25 °C				
Specification	**Symbol**	**Min**	**Typical**	**Max**
Center Wavelength[a]	λ_o	497 nm	505 nm	515 nm
Output Power (CW)	P_{op}	-	30 mW	-
Threshold Current	I_{TH}	-	32 mA	-
Operating Current (CW)[a]	I_{op}	-	80 mA	100 mA
Operating Voltage[a]	V_{op}	-	6.7 V	7.5 V
Slope Efficiency	η	-	0.57 mW/mA	-
Parallel Divergence Angle (FWHM)[a]	$\theta\parallel$	6°	8°	10°
Perpendicular Divergence Angle (FWHM)[a]	$\theta\perp$	20°	23°	26°

a. For an optical output power (CW) of 30 mW.

Typical Performance Plots





Drawing