520 nm Laser Diode, 110 mW

L520A2

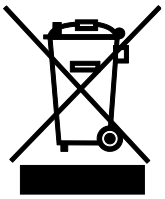
Description

This 520 nm, 110 mW laser is a compact light source that outputs a single transverse mode suited for a variety of applications, such as health monitoring, measurement leveling, projection, etc. It comes in a Ø5.6 mm TO package with an A pin configuration. This laser diode is compatible with our line of laser diode and TEC controllers as well as our selection of collimation solutions and TO can laser diode mounts.

Specifications

Absolute Maximum Ratings[a]	
Specification	**Value**
Operating Current	330 mA
Output Power	115 mW
LD Reverse Voltage	2 V
Operating Case Temperature	-20 °C to 60 °C
Storage Temperature	-40 °C to 85 °C

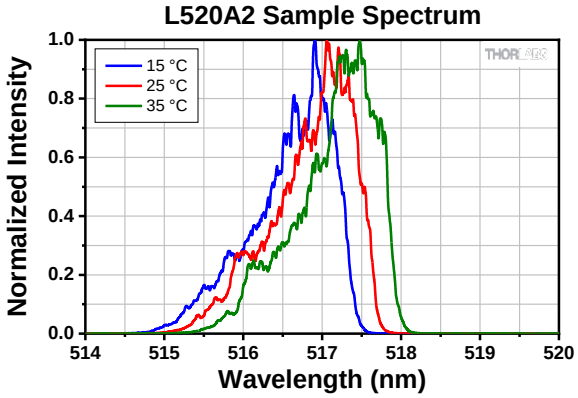
a. Absolute maximum rating specifications should never be exceeded. Operating at or beyond these conditions can permanently damage the laser.

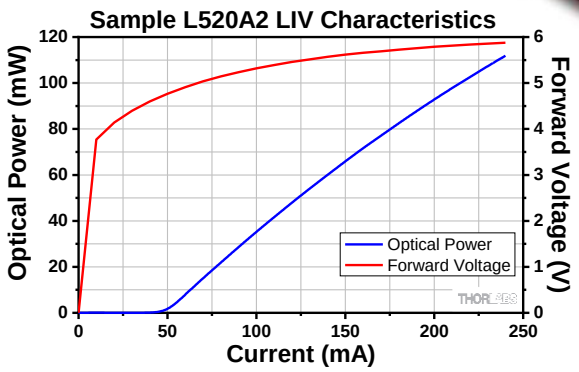


L520A2 Specifications[a]					
Specification		**Symbol**	**Min**	**Typical**	**Max**
Center Wavelength @ P_{op}		λ_o	510 nm	520 nm	530 nm
Optical Output Power, CW		P_{op}	110 mW	-	-
Threshold Current		I_{TH}	-	40 mA	90 mA
Operating Current CW @ P_{op}		I_{op}	-	225 mA	-
Operating Voltage @ P_{op}		V_{op}	-	5.9 V	7.3 V
Slope Efficiency		η	-	0.6 W/A	-
Modulation Frequency		F	-	>100 MHz	-
Monitor Current		I_m	-	0.2 mA	-
Beam Divergence (FWHM) @ P_{op}	**Parallel**	$\theta_{\parallel}$	6°	8°	10°
	Perpendicular	$\theta_{\perp}$	19°	22°	25°

a. T_{CASE} = 25 °C if not specified.

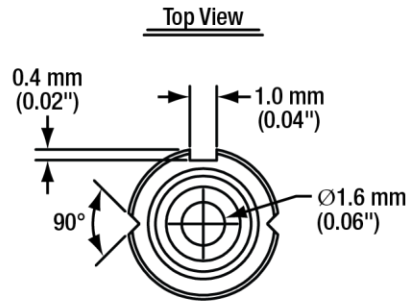
Performance Plots

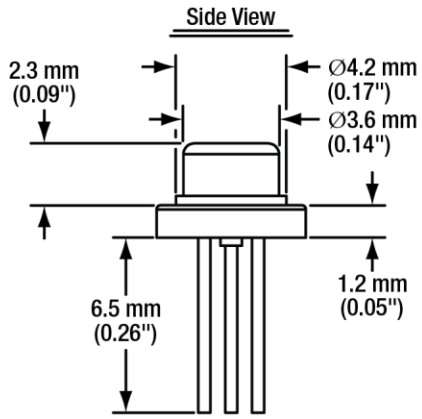




The data presented here is for one particular laser diode. Slight variations in performance data will occur from device to device. The sample spectrum of the L520A2 laser diode was measured at 15 °C, 25 °C, and 35 °C. The L-I-V characteristics data was taken at 25 °C. Please visit our website for raw spectral data and L-I-V characteristics.

Drawings





Pin	Description
1	Photodiode Anode
2	Case
3	Laser Diode Cathode