

L515A1

Description

This 515 nm, 10 mW laser diode is a compact light source suited for a variety of applications, such as fluorescence and spectroscopic measurements, DNA sequencing, flow cytometry, imaging, and microscopy. It comes in a $\varnothing 5.6$ mm TO package with an A pin configuration. We recommend having the base of the laser diode in sufficient thermal contact with a heat sink.

Specifications

Absolute Maximum Ratings ^a		
	Symbol	Maximum
Operating Current	I_F	120 mA
LD Reverse Voltage	V_R	2 V
Operating Case Temperature	T_{op}	-20 to 60 °C
Storage Temperature	T_{stor}	-40 to 85 °C



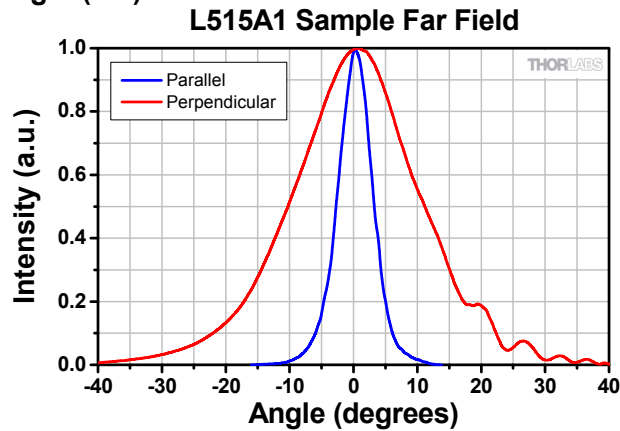
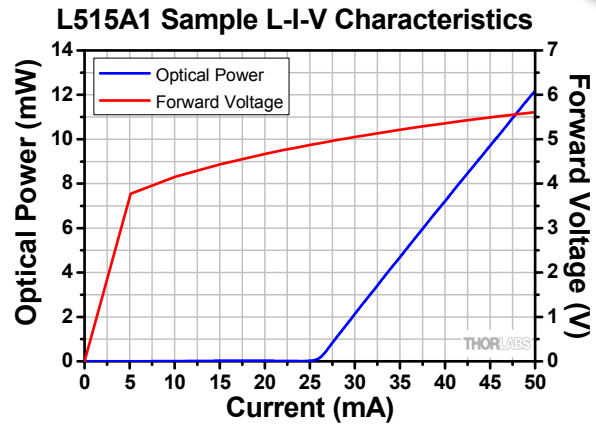
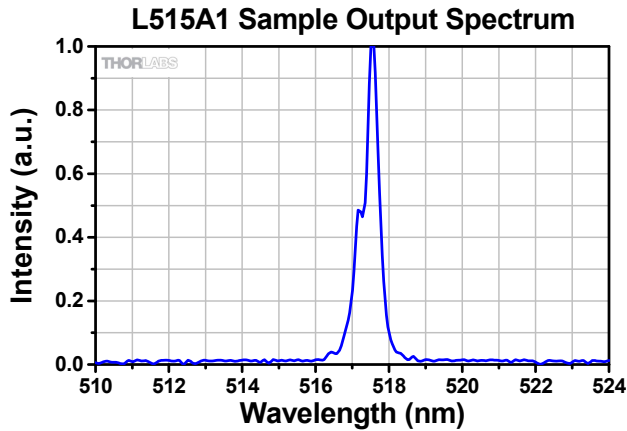
- a. Absolute maximum rating specifications should never be exceeded. Operating at or beyond these conditions can permanently damage the laser.

L515A1 Specifications ^b					
Specification	Symbol	Min	Typical	Max	
Center Wavelength @ P_{op}	λ_o	510 nm	515 nm	525 nm	
Output Power, CW	P_{op}	-	10 mW	-	
Threshold Current	I_{TH}	-	30 mA	50 mA	
Operating Current CW @ P_{op}	I_{op}	-	50 mA	100 mA	
Operating Voltage @ P_{op}	V_{op}	-	5.4 V	7.0 V	
Slope Efficiency	η	-	0.5 W/A	-	
Modulation Frequency	f	-	>100 MHz	-	
Monitor Current	I_m	-	0.15 mA	-	
Beam Divergence (FWHM) @ P_{op}	Parallel	$\theta_{ }$	5°	6.5°	9°
	Perpendicular	θ_{\perp}	19°	21°	25°

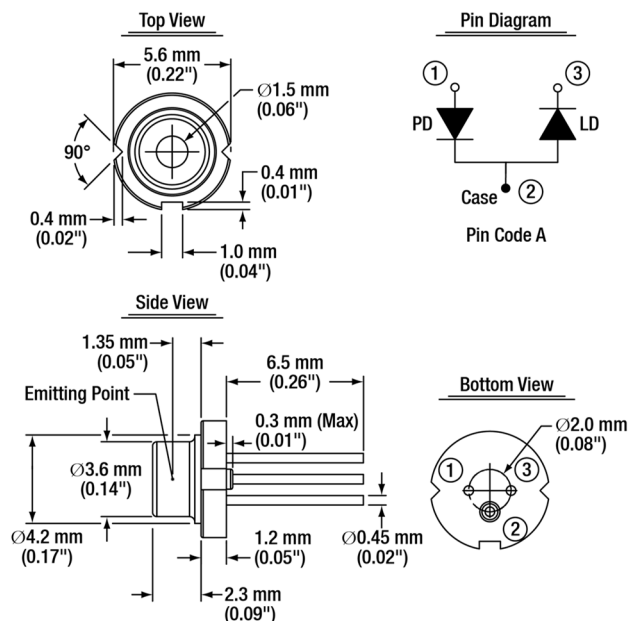
- b. $T_{CASE} = 25$ °C, CW Current Operation

Performance Plots

The sample output spectrum and far field were measured at 25 °C ambient temperature and 10 mW output power.



Drawings



Pin	Description
1	Photodiode Anode
2	Case
3	Laser Diode Cathode