

L850VH1



Description

L850VH1 is an 850 nm, 1.0 mW AlGaAs VCSEL diode designed to meet the characteristics of a single longitudinal wavelength, a single spatial mode and a circular beam profile. It is packaged into a TO-46 package with an H pin configuration. It is designed as a spectral stability light source with low power dissipation and linear polarization. It is widely used in position sensing, motion control, medical devices, printing, measurement and spectroscopic sensing.

Specifications

Absolute Maximum Ratings ^a	
LD Reverse Voltage(Max)	2 V
Absolute Max Output Power	1.0 mW
Absolute Max Current	6 mA
Absolute Max Voltage	2.8 V
Operating Case Temperature	0 to 50 °C
Storage Temperature	-10 to 65 °C
Pin Code	H

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

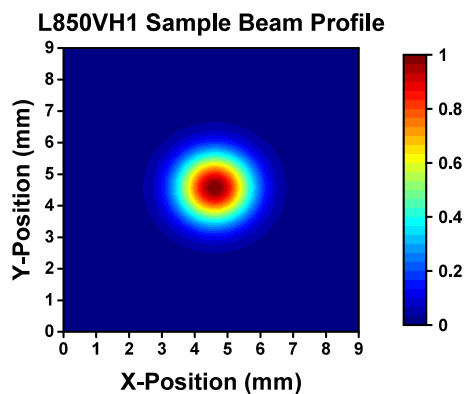
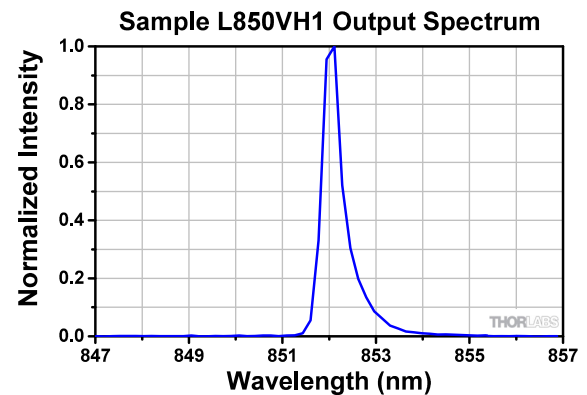
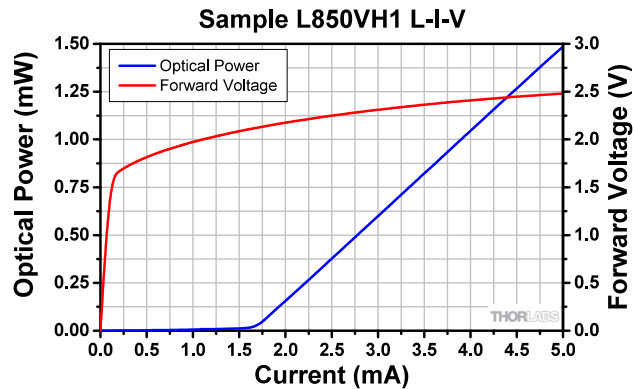


L850VH1 ^a				
	Symb ol	Min	Typical	Max
Center Wavelength	λ_c	830 nm	850 nm	870 nm
Output Power	P_{CW}	-	-	1.0 mW
Threshold Current	I_{th}	-	2 mA	-
Operating Current	I_{OP}	-	-	6 mA
Slope Efficiency	$\Delta P / \Delta I$	-	0.3 W/A	-
Forward Voltage	V_F	-	2.5 V	2.8 V
Beam Divergence (FW 1/e ² @ I_{OP})	θ	-	8°	25°

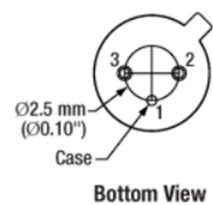
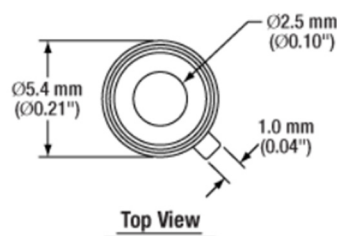
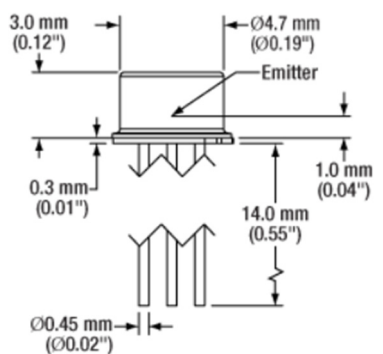
a. $T_{chip} = 25\text{ °C}$

Typical Performance Plots

The data below was measured at 25 °C.



Drawing



Pin Diagram

