



L405G2

Description

This 405 nm, 35 mW laser diode is a compact light source suited for a variety of applications, such as fluorescence and spectroscopic measurements, flow cytometry, imaging and microscopy, and materials processing. Packaged in a Ø3.8 mm TO can with a G pin configuration, the diode is MOCVD grown, can be operated in CW or pulsed mode, and is optimized for high-efficiency lasing over a broad temperature range of 0 °C to 90 °C. Featuring a much narrower wavelength range compared to other standard laser diodes, every L405G2 is tested to ensure a center wavelength tolerance of ±1 nm.

Specifications

Absolute Maximum Ratings ^a		
Specification	Symbol	Maximum
Output Power, CW	P_{op}	80 mW
Operating Current, CW	I_{op}	80 mA
LD Reverse Voltage	V_R	2 V
Operating Case Temperature	T_{op}	0 to 90 °C
Storage Temperature	T_{stor}	-40 to 90 °C

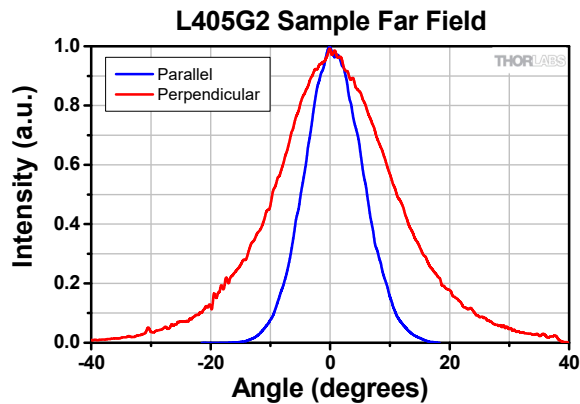
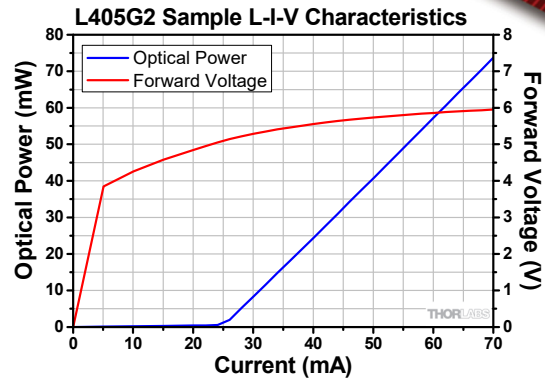
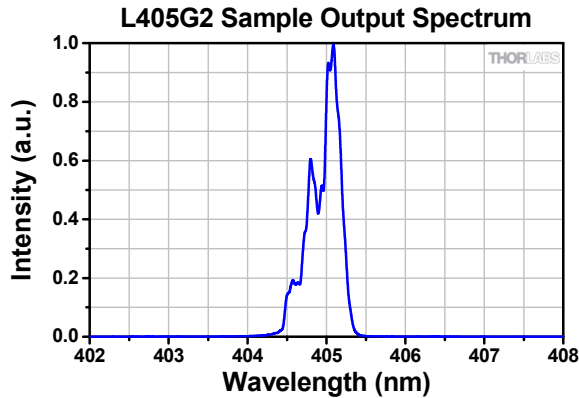


- a. Absolute Maximum Rating specifications should never be exceeded. Operating at or beyond these conditions can permanently damage the laser.

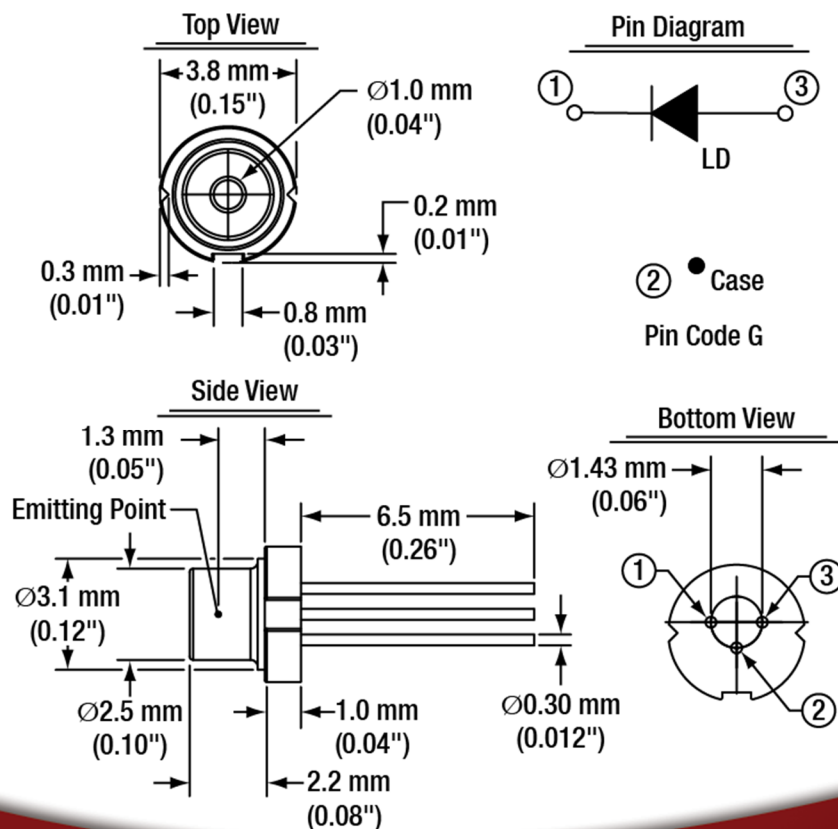
L405G2 Specifications				
	Symbol	Min	Typical	Max
Center Wavelength	λ_o	404 nm	405 nm	406 nm
Output Power, CW	P_{op}	-	35 mW	-
Threshold Current	I_{TH}	-	25 mA	30 mA
Operating Current CW @ P_{op}	I_{op}	-	50 mA	60 mA
Operating Voltage @ P_{op}	V_{op}	-	4.9 V	5.7 V
Slope Efficiency	η	1.4 W/A	1.7 W/A	-
Polarization Extinction Ratio (TE/TM)	PER	-	22 dB	-
Beam Divergence (FWHM)	Parallel @ P_{op}	$\theta_{ }$	-	10°
	Perpendicular @ P_{op}	θ_{\perp}	-	21°

- b. $T_{CASE} = 25\text{ °C}$

Performance Plots



Drawings



Pin	Description
1	Cathode
2	Case
3	Anode