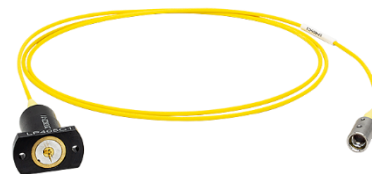


LP405C1



Description

Thorlabs' Single Mode Pigtailed Laser Diodes are standard TO-packaged diodes that have been pigtailed to a 1 m long single mode fiber. For this 405 nm, 30 mW pigtail package, a fiber end cap is used for input inside the optics-diode package to avoid excessive power drop. On the output side, a fiber end cap is also used going into a sealed, argon-gas-filled collimator, so the output is a collimated beam. An S038S socket is included with each diode. Each unit is tested before shipment. Please refer to the unit-specific test datasheet for optimal operating parameters.

Specifications

Absolute Maximum Ratings ^a	
LD Reverse Voltage	2 V
Optical Output Power	40 mW
Operating Temperature	0 to 50 °C
Storage Temperature	-10 to 65 °C
Fiber and Diode Specifications	
Fiber	S405-XP
Fiber Length	1 m
Output	Beam Collimator (355230-A Aspheric Lens)
Diode Size	3.8 mm
Pin Code	G

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

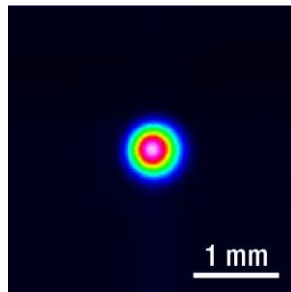


NOTICE
To avoid equipment damage from electrostatic discharge:
Wear ESD wriststrap when handling this device.

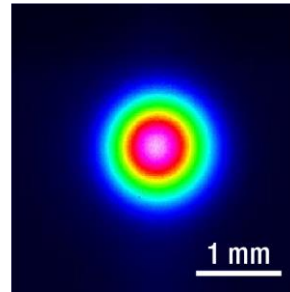
LP405C1 Specifications ^b			
	Min	Typ.	Max
Wavelength	397 nm	405 nm	415 nm
Threshold Current	-	30 mA	50 mA
Optical Output Power, CW (P _O)	-	30 mW	40 mW
Slope Efficiency	0.20 mW/mA	0.70 mW/mA	-
Operating Current @ P _O = 30 mW	-	75 mA	110 mA
Operating Voltage @ P _O = 30 mW	-	4.3 V	7.5 V
Beam Diameter ^c	-	0.32 mm	-
Far Field Full-Angle Divergence ^d	-	1.4 mrad	1.65 mrad

- b. T_{CHIP} = 25 °C
c. Theoretical 1/e² Diameter at 4.25 mm from Front of Collimator Housing at 405 nm
d. Output Beam Far Field 1/e² Divergence Angle for 405 nm

Sample Beam Profiles



This beam profile was measured
40 cm from the collimator.



This beam profile was measured
100 cm from the collimator.

Drawing

