

785nm, 175/225mW Wavelength Stabilized Lasers



High Power, Narrow Linewidth Collimated Output Beam

Features:

- Compact 9mm TO can footprint
- Exceptionally high power up to 225mW
- Single Frequency Operation 12MHz linewidth
- Wavelength stability across operating range <0.01nm/°C
- Fast-axis collimated output beam
- NoiseBlock™ narrow-band ASE suppression filters and beamsplitters available in matching wavelengths to further reduce linewidth and ASE noise

Applications:

- Raman Spectroscopy
- Metrology
- Bio-instrumentation
- Sensing
- Analytical Instrumentation

Ondax's 785nm Wavelength Stabilized Laser is a high-power, single mode, single-axis collimated laser packaged in an ultra-compact, TO-can footprint. The narrowed linewidth, low power consumption, and broad temperature operating characteristics deliver affordable, portable instrument-quality performance for a broad range of instrumentation applications.

All SureLock™ Series lasers are stabilized using the Ondax PowerLocker® Volume Holographic Grating (VHG), ensuring precise, ultra-stable center wavelengths, low temperature dependence, and consistent optical performance over the locked region.

Specifications:

Specification Summary

Parameter	Symbol	Min	Тур	Max	Unit
Output Power	Po		175 225		mW
Center Wavelength (vacuum)	λ_0	784.5	785	785.5	nm
Linewidth	Δλ		12		MHz
Central Stabilized Temperature	Tc	15	25	40	°C
Stabilized Temperature Range	Tr	10			°C

Operating Specifications

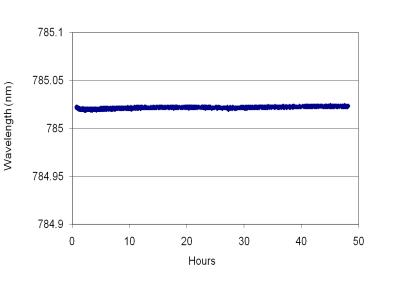
Parameter	Symbol	Min	Тур	Max	Unit
Threshold Current	I_{th}		80	110	mA
Operating Current	I _{op}		350	500	mA
Operating Voltage	V_{op}		2	2.8	V
Beam Divergence, Perpendicular (FWHM)	Q_{ν}		0.2		Degrees
Beam Divergence, Parallel (FWHM)	Q_h		0.1		Degrees
Differential Efficiency	DE (dP/dI)		0.6		mW/mA
Operating Temperature ²	Тор	0		35	٥С
Storage Temperature ²	Ts	-10		60	٥С
Polarization			100:1		
Collimated Beam Diameter			0.25x 0.7		mm

¹All specifications are at rated power with a case temperature of 25°C unless otherwise noted ²Non-condensing

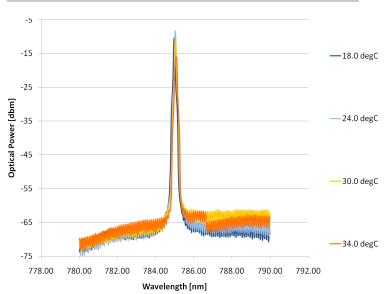
SureLock™

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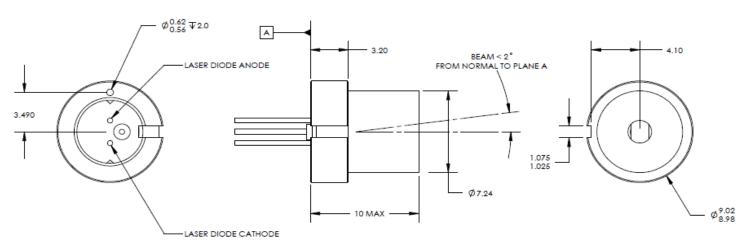
Wavelength Stability



Optical Spectrum (Sample)



Outline Drawing

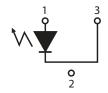


Pinout

Pin	Description
1	Laser Diode Anode
2	Case
3	Laser Diode Cathode

Model Number

CP-785-PLR175			
CP-785-PLR225			





CAUTION-VISIBLE AND/OR INVISIBLE LASER RADIATION. AVOID EXPOSURE TO BEAM. CLASS 3B LASER PRODUCT.



850 E. Duarte Rd. Monrovia, CA 91016 626-357-9600 (Tel) 626-513-7494 (Sales Fax) For more information about Ondax products and the name of a local representative or distributor, visit www.ondax.com, email sales@ondax.com, or call (626) 357-9600. Specifications subject to change without notice. Each purchased laser is provided with test data. Please refer to this data before using the laser.

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