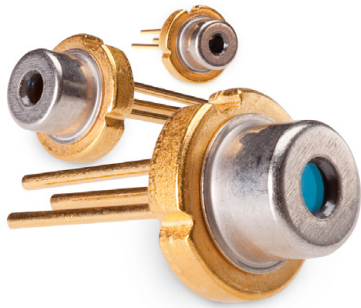


# 808nm, 120mW Wavelength Stabilized Lasers



Single Frequency  
Wavelength Stability:  $\sim 0.015\text{nm}/^\circ\text{C}$

Ondax's 808nm Wavelength Stabilized Laser is a single mode, single frequency laser packaged in an ultra-compact, TO-can footprint. The extremely narrow linewidth, broad temperature operating characteristics, and low power consumption 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 (Preliminary):

### Specification Summary

Parameter	Symbol	Min	Typ	Max	Unit
Output Power	$P_o$			120	mW
Center Wavelength (vacuum) <sup>1</sup>	$L_p$	807	808	809	nm
Linewidth (MHz)	$\Delta\lambda$		50		MHz
Central Stabilized Temperature	$T_c$	15		40	$^\circ\text{C}$
Stabilized Temperature Range	$T_r$	10	20		$^\circ\text{C}$

### Operating Specifications

Parameter	Symbol	Min	Typ	Max	Unit
Threshold Current (CW)	$I_{th}$		35	45	mA
Operating Current	$I_{op}$		170	220	mA
Operating Voltage	$V_{op}$		1.9	2.2	V
Laser Reverse Voltage	$V_{rl}$			2	V
Beam Divergence, Perpendicular	$Q_v$	13	17	22	Degrees
Beam Divergence, Parallel	$Q_h$	-	8	11	Degrees
Differential Efficiency	DE (dP/dI)		1.1		mW/mA
Operating Temperature <sup>2</sup>	$T_{op}$	0		50	$^\circ\text{C}$
Storage Temperature <sup>2</sup>	$T_s$	-10		60	$^\circ\text{C}$

<sup>1</sup>Other nearby center wavelengths available by request <sup>2</sup>Non-condensing All specifications are at rated power with a case temperature of 25 $^\circ\text{C}$  unless otherwise noted

## Features:

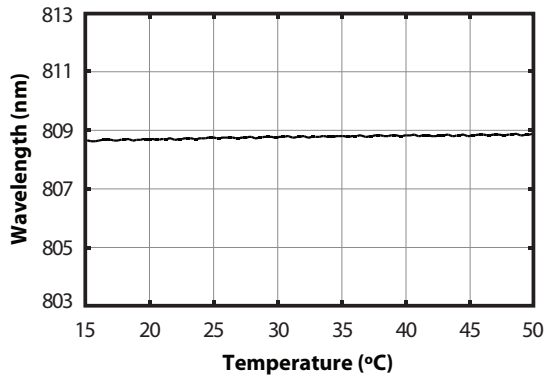
- Single frequency performance
- Narrow linewidth <50 MHz
- Wavelength stability across operating range 0.015nm/ $^\circ\text{C}$
- Coherence length >2m
- Compact TO footprint
- NoiseBlock™ narrow-band ASE suppression filters and beamsplitters available in matching wavelengths to further reduce linewidth and ASE noise

## Applications:

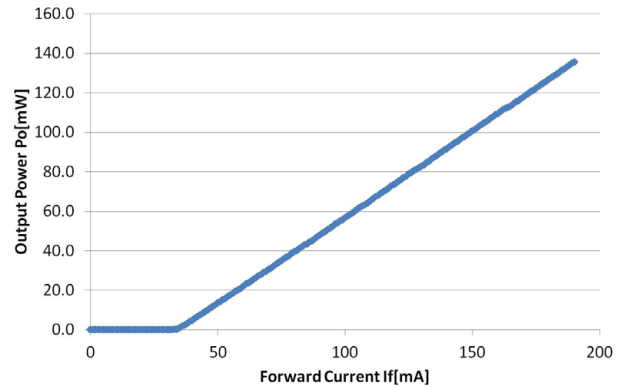
- Solid State Laser Pumping
- Photodynamic Therapy
- Bio-instrumentation
- Sensing
- Analytical Instrumentation

# 808nm, 120mW Wavelength Stabilized Lasers

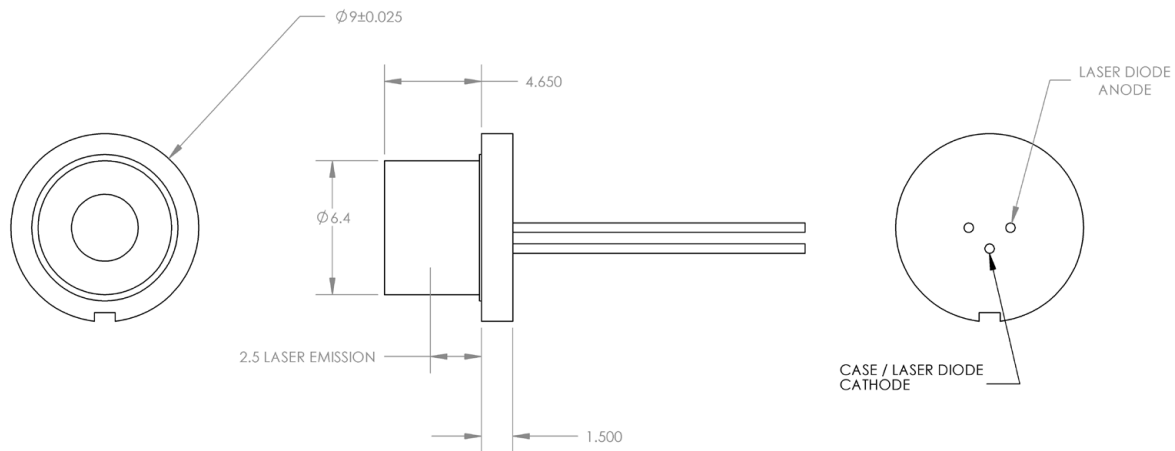
## Stabilized Temperature Range



## Output Power vs Forward Current (Typical)

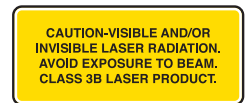


## Drawing and Pinout



## Model Number

TO-808-PLR120-1



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For more information about Ondax products and the name of a local representative or distributor, visit [www.ondax.com](http://www.ondax.com), email [sales@ondax.com](mailto: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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