

780.25nm, 80mW Wavelength Stabilized Lasers



Single Frequency
Wavelength Stability: ~0.015nm/°C

Features:

- Single frequency performance
- Narrow linewidth <50 MHz
- Wavelength stability across operating range 0.015nm/°C
- Coherence length >2m
- Compact, hermetically sealed TO footprint

Applications:

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

Ondax's 780.25nm 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:

Specification Summary

Parameter	Symbol	Min	Тур	Max	Unit
Output Power	Po			80	mW
Center Wavelength (vacuum) ¹	Lp	780.01	780.25	780.41	nm
Linewidth (MHz)	Δλ		50	100	MHz
Central Stabilized Temperature	Tc	15		35	°C
Stabilized Temperature Range	Tr	15			°C

Operating Specifications

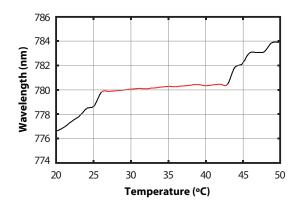
Parameter	Symbol	Min	Тур	Max	Unit
Threshold Current (CW)	I _{th}		50		mA
Operating Current	Iop		110	200	mA
Operating Voltage	V_{op}		1.3	2.2	٧
Laser Reverse Voltage	V_{rl}			2	V
Beam Divergence, Perpendicular	Q_{ν}		25		Degrees
Beam Divergence, Parallel	Q_h		10		Degrees
Emitter Size			1.5 x 3		μm
Differential Efficiency	DE (dP/dI)		0.9		mW/mA
Operating Temperature ²	Top	0		40	٥
Storage Temperature ²	Ts	-20		70	٥
Polarization Orientation			TE		

 $^{^1}$ Please specify wavelength at time of ordering 2 Non-condensing All specifications are at rated power with a case temperature of 25 $^{\circ}$ C unless otherwise noted

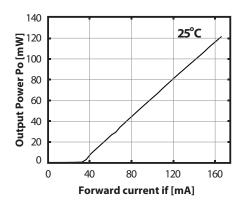
SureLock™

780.25nm, 80mW Wavelength Stabilized Lasers

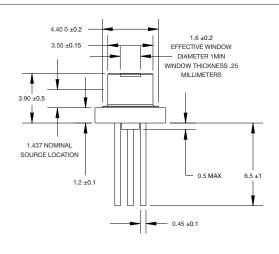
Stabilized Temperature Range



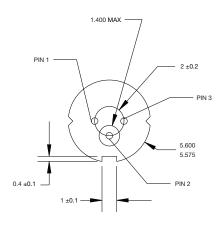
Output Power vs Forward Current (Typical)



Side View

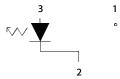


Bottom View



Pinout

Pin	Description
1	Not Connected
2	Case
3	Laser Diode Anode



Model Number

T0-780.25-PLR80-T



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) 626-513-7474 (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.

© 2011 Ondax, Inc. 04/04 115-81038-015 Rev. 7