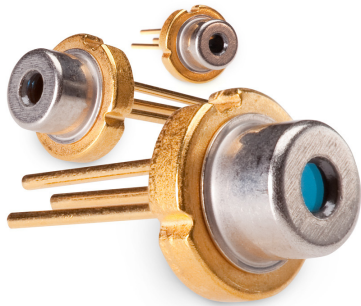


780.25nm, 80mW Wavelength Stabilized Lasers



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

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	Typ	Max	Unit
Output Power	P_o			80	mW
Center Wavelength (vacuum) ¹	L_p	780.01	780.25	780.41	nm
Linewidth (MHz)	$\Delta\lambda$		50	100	MHz
Central Stabilized Temperature	T_c	15		35	$^\circ\text{C}$
Stabilized Temperature Range	T_r	15			$^\circ\text{C}$

Features:

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

Applications:

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

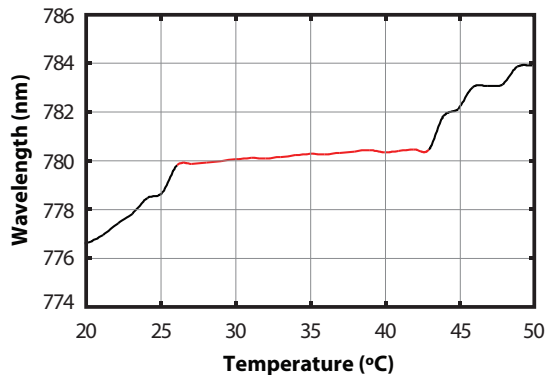
Operating Specifications

Parameter	Symbol	Min	Typ	Max	Unit
Threshold Current (CW)	I_{th}		50		mA
Operating Current	I_{op}		110	200	mA
Operating Voltage	V_{op}		1.3	2.2	V
Laser Reverse Voltage	V_{rl}			2	V
Beam Divergence, Perpendicular	Q_v		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	T_{op}	0		40	$^\circ\text{C}$
Storage Temperature ²	T_s	-20		70	$^\circ\text{C}$
Polarization Orientation			TE		

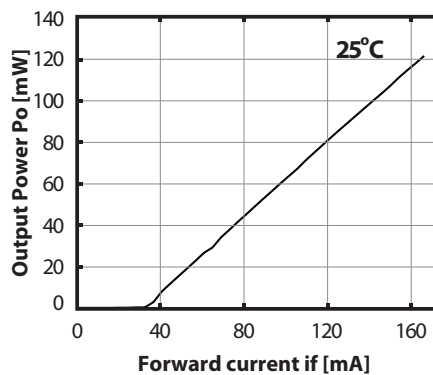
¹Please specify wavelength at time of ordering ²Non-condensing All specifications are at rated power with a case temperature of 25°C unless otherwise noted

780.25nm, 80mW Wavelength Stabilized Lasers

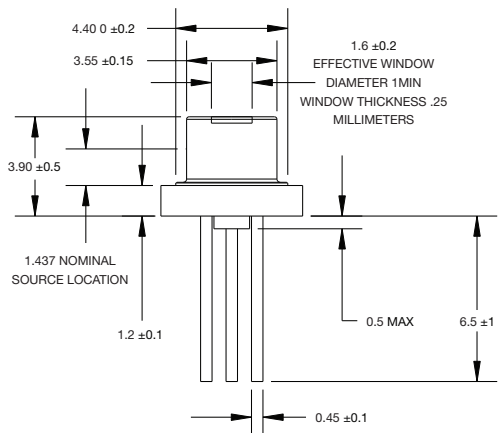
Stabilized Temperature Range



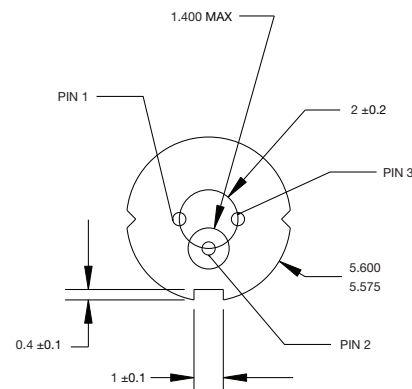
Output Power vs Forward Current (Typical)



Side View

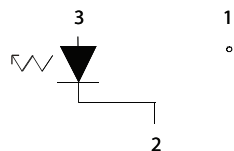


Bottom View



Pinout

Pin	Description
1	Not Connected
2	Case
3	Laser Diode Anode



Model Number

T0-780.25-PLR80-T

