ONDAX
Filters and Lasers to Bragg About....

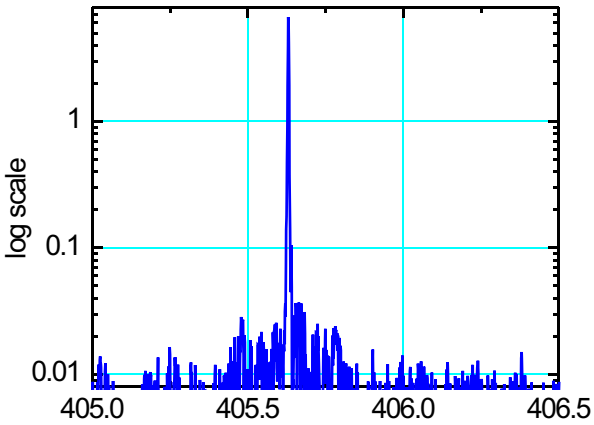
SureLock™

405nm Wavelength Stabilized Laser

Description:

Ondax's SureLock™ 405nm Wavelength Stabilized Laser is a miniature collimated laser in a standard TO package. The stabilization is achieved by optical feedback using the Ondax Volume Holographic Grating (VHG) PowerLocker®.

The VHG ensures a stable single frequency operation.



Single Longitudinal Mode

Collimated TO-can laser

Coherence Length: ~1m

Linewidth: <160MHz, <0.08pm, <0.006cm^{-1}



Specifications:

Absolute Maximum Ratings

Parameter	Symbol	Ratings	Unit
Output Power	P_o	15	mW
Laser Reverse Voltage	V_{rl}	2	V
Operating Temperature	T_{op}	0 to 60	°C
Storage Temperature	T_s	-10 to 60	°C

[1] At a case temperature of 25 °C

[2] Non-condensing

Operating Specifications						
Parameter	**Symbol**	**Conditions**	**Min**	**Typ**	**Max**	**Units**
Threshold Current	I_{th}	CW		40	60	mA
Operating Current	I_{op}	P_o = 12 mW		65	85	mA
Operating Voltage	V_{op}	P_o = 12 mW		5.4	6.5	V
Lasing Wavelengths	L_p	P_o = 12 mW T=T_c	402	403	404	nm
	L_p	P_o = 12 mW T=T_c	404	405	406	nm
	L_p	P_o = 12 mW T=T_c	406	407	408	nm
Coherence Length	L_c	P_o = 12 mW T=T_c		1		m
Central Stabilized Temperature	T_c	P_o = 12 mW	10	30	55	°C
Stabilized Temperature Range	T_r	P_o = 12 mW	5	7.5	15	°C
Collimated beam size	Q_v	P_o = 12 mW	0.8 x 0.4 mm			mm
Differential Efficiency	DE		0.35	0.55	0.8	mW/mA

All specifications are with a case temperature of 25 °C and non-condensing, unless otherwise noted.

Features:

- Wavelength stability (4pm/°C)
- Long lifetime guarantee: 12 months or 5,000 hours
- Single frequency
- Coherence length (~1m)
- Collimated TEM00 output

Applications:

Raman spectroscopy, data storage, flow cytometry, metrology/interferometry, embossed holograms, CD mastering, diffraction grating fabrication, confocal microscopy, particle counting, fluorescence, nondestructive testing, microlithography, high speed printing, lidar.

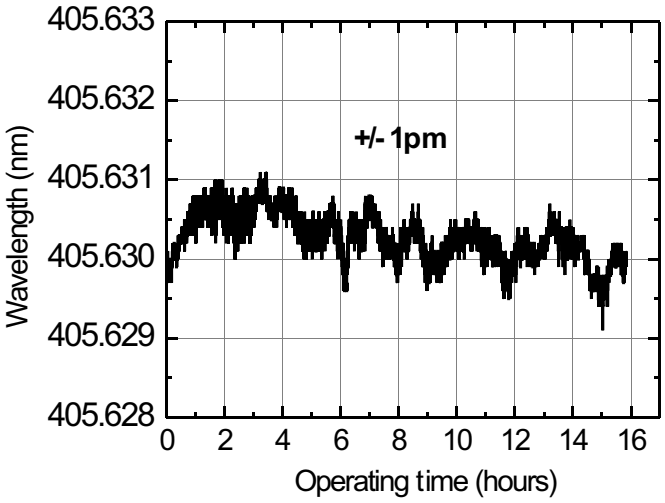
Preliminary Specifications

Specifications are subject to change without notice. Each purchased laser is provided with test data. Please refer to this data before using the laser.

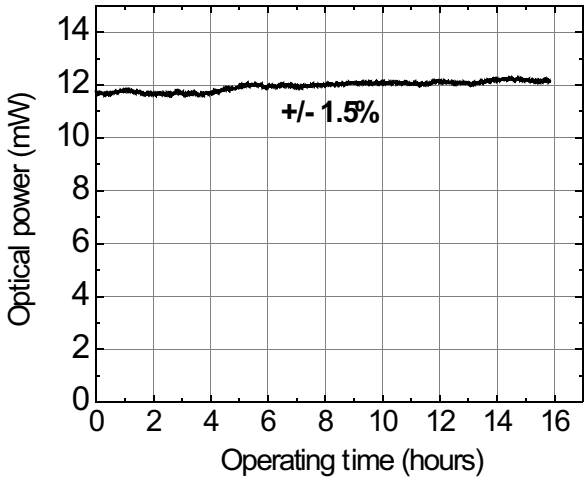
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850 E. Duarte Rd. Monrovia, CA 91016 Tel: (626) 357-9600 Fax: (626) 357-9321 sales@ondax.com

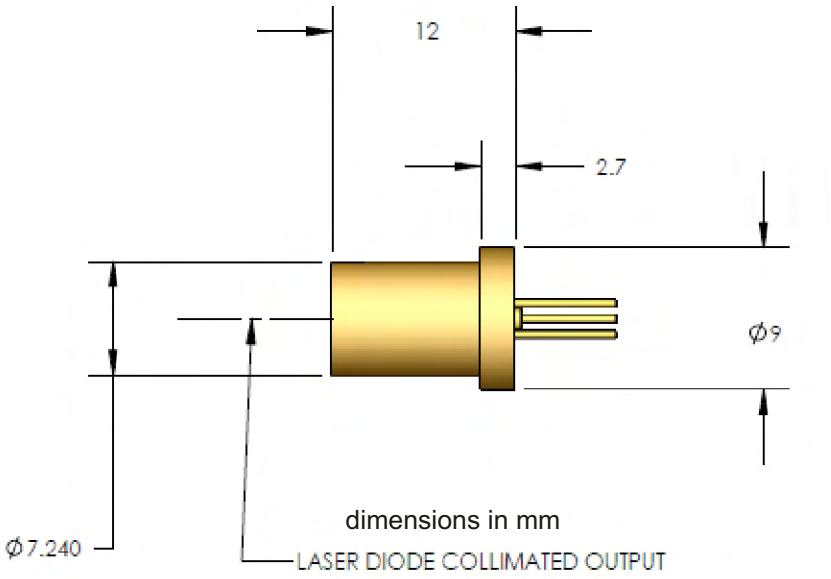
Wavelength stability



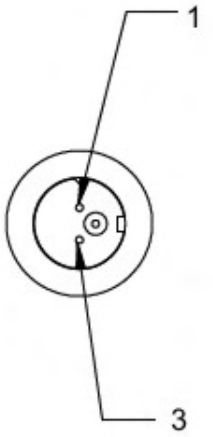
Optical power stability

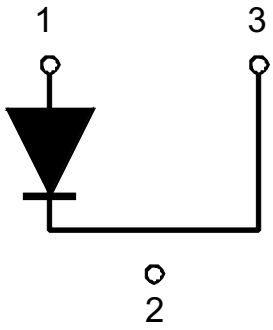


Side View



Bottom View





Model Numbers:

TO-403-PLR12
TO-405-PLR12
TO-407-PLR12

Pinout

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

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