

Description:

Ondax's 808nm Wavelength Stabilized Laser is a single mode, miniature laser in a standard TO package. The stabilization is achieved using the Ondax Volume Holographic Grating (VHG) PowerLocker®.

The laser has a very low temperature dependence and precise center wavelength over the locked region.

The narrow linewidth and long coherence length from a standard TO packaged laser enables many applications.

Features:

- Wavelength stability (~0.015nm/°C)
- Single frequency
- Coherence length (>2m)
- Hermetically sealed
- Custom wavelengths available

Applications:

Diode pumping, photodynamic therapy, bio-medical instrumentation, graphic arts, and analytical instrumentation.

Single Frequency

Wavelength Stability: ~0.015nm/°C



Specifications:

Absolute Maximum Ratings

Parameter	Symbol	Rated	Unit
Light Output ¹	P _o	170	mW
Laser Reverse Voltage ¹	V _{ri}	2	V
Operating Temperature ²	T _{op}	0 to 50	°C
Storage Temperature ²	T _s	-20 to 70	°C

¹ At a case temperature of 25° C.

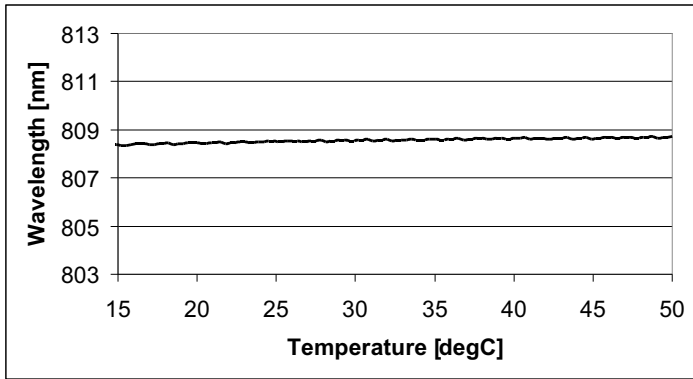
² Non-condensing

Operating Specifications

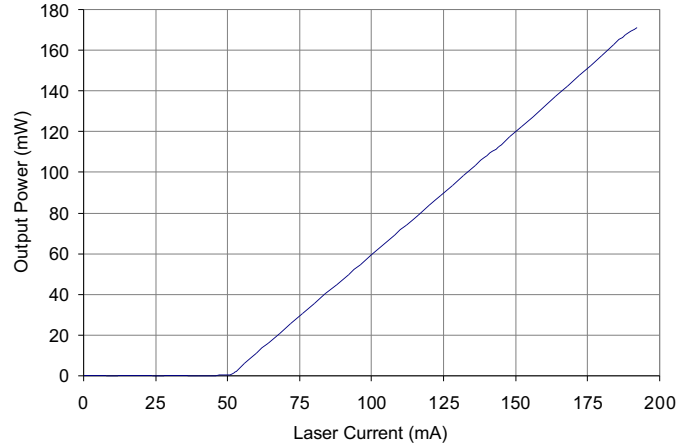
Parameter	Symbol	Conditions	Min	Typ	Max	Units
Threshold Current	I _{th}	CW		50	70	mA
Operating Current	I _{op}	P _o = 170 mW		230	260	mA
Lasing Wavelengths	L _p	P _o = 170 mW T=T _c	807	808	809	nm
Linewidth		P _o = 170 mW T=T _c		50		MHz
Central Stabilized Temperature	T _c	P _o = 170 mW	10	30	45	°C
Stabilized Temperature Range	T _r	P _o = 170 mW	10	20		°C
Beam Divergence, Perpendicular	Q _v	P _o = 170 mW	12	16	19	deg.
Beam Divergence, Parallel	Q _h	P _o = 170 mW	6	8	10	deg.
Differential Efficiency	DE (dP/dI)			1.2		mW/mA

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

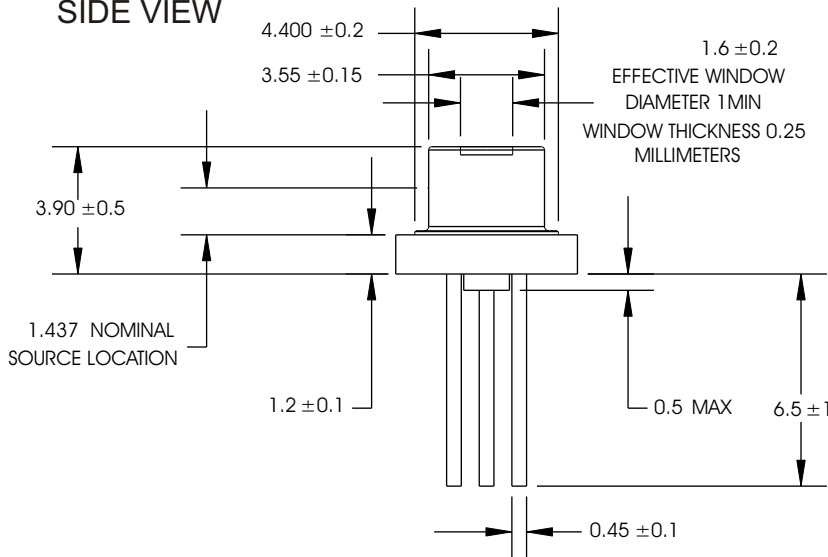
Stabilized Temperature Range



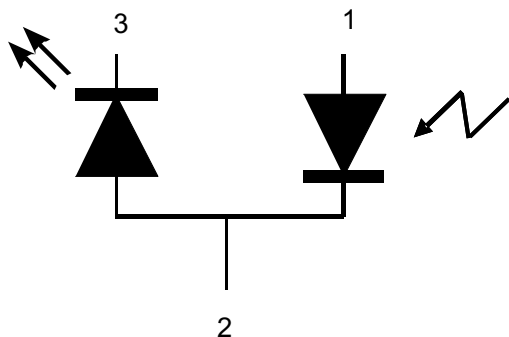
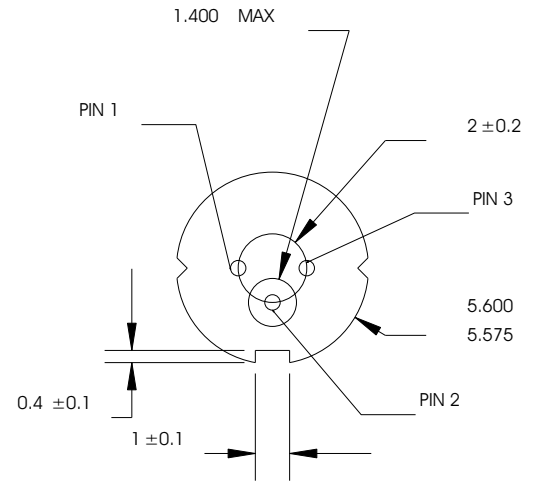
Output Power vs Forward Current (Typical)



SIDE VIEW



BOTTOM VIEW



Pinout

Pin	Description
1	Photodiode Anode
2	Case
3	Laser Diode Cathode

Model Number:
TO-808-PLR170



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

115-81034-003 Rev. 5