

Description:

Ondax's 658nm 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:

HeNe replacement, flow cytometry, blood flow, metrology, bio Instrumentation, graphic arts, Raman spectroscopy, analytical instrumentation, sensing, and data storage.

Single Frequency

Wavelength Stability: ~0.015nm/°C

Specifications:



Absolute Maximum Ratings

Parameter	Symbol	Ratings	Unit
Output Power ¹	P _o	35	mW
Laser Reverse Voltage ¹	V _{rl}	2	V
Photodiode Reverse Voltage ¹	V _{rp}	30	V
Operating Temperature	T _{op}	0 to 50	°C
Storage Temperature	T _s	-10 to 60	°C

¹ At a case temperature of 25° C.

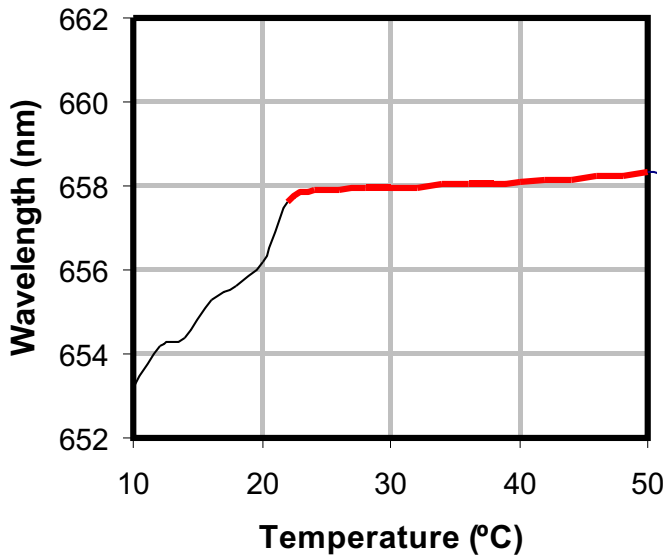
Operating Specifications						
Parameter	Symbol	Conditions	Min	Typ	Max	Units
Threshold Current	I _{th}	CW		30	50	mA
Operating Current	I _{op}	P _o = 35 mW		65	85	mA
Operating Voltage	V _{op}	P _o = 35 mW		2.4	2.8	V
Monitoring Output Current	I _m	P _o = 35 mW	0.3	0.5	0.7	mA
Lasing Wavelengths	L _p	P _o = 35 mW T=T _c	655	656	657	nm
	L _p	P _o = 35 mW T=T _c	657	658	659	nm
	L _p	P _o = 35 mW T=T _c	659	660	661	nm
Linewidth		P _o = 35 mW T=T _c			50	MHz
Central Stabilized Temperature	T _c	P _o = 35 mW	15	30	40	°C
Stabilized Temperature Range	T _r	P _o = 35 mW	10	15		°C
Beam Divergence, Perpendicular	Q _v	P _o = 35 mW	12	16	20	deg.
Beam Divergence, Parallel	Q _h	P _o = 35 mW	7	10	13	deg.
Off Axis Angle, Perpendicular	dQ _v		-3		3	deg.
Off Axis Angle, Parallel	dQ _h		-3		3	deg.
Emitter Size			1	X	3	um
Differential Efficiency	DE			1.1		mW/mA

Specifications are subject to change without notice. Each purchased laser is provided with test data.

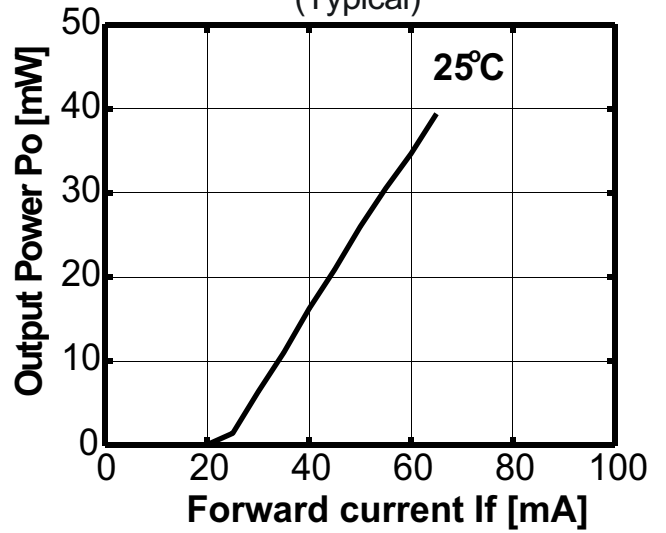
Please refer to this data before using the laser.

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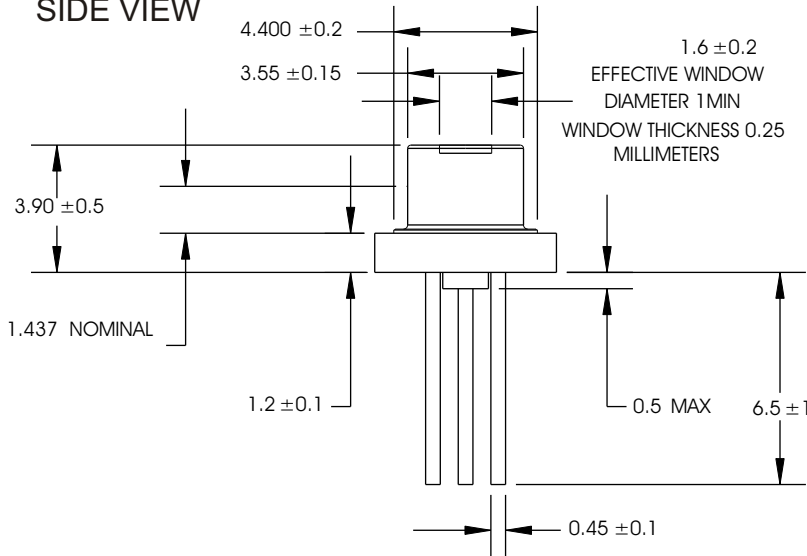
Stabilized Temperature Range



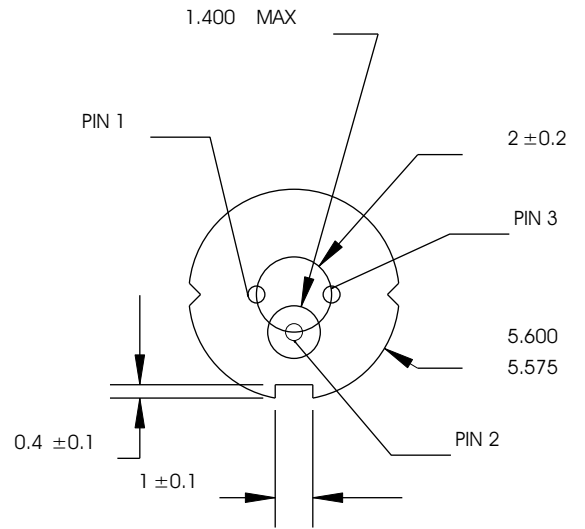
Output Power vs Forward Current (Typical)



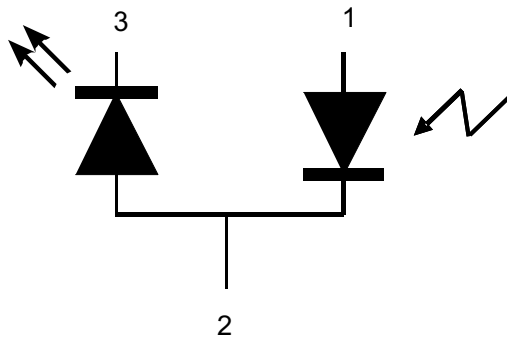
SIDE VIEW



BOTTOM VIEW



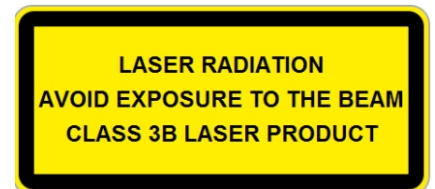
Pinout



Pin	Description
1	Photodiode Anode
2	Case
3	Laser Diode Cathode

Model Numbers:

- TO-656-PLR35
- TO-658-PLR35
- TO-660-PLR35



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