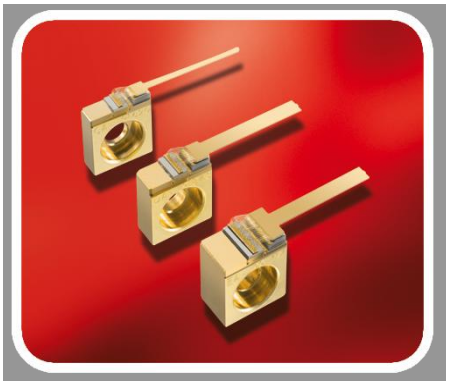
EYP-RWL-0808-00800-4000-CMT04-0000

RIDGE WAVEGUIDE LASER

GaAs Semiconductor Laser Diode
Fabry-Perot Laser

General Product Information

Product	Application
808 nm Fabry-Perot Laser	
C-Mount Package	



Absolute Maximum Ratings

	Symbol	Unit	min	typ	max	
Storage Temperature	T_S	°C	-40		85	non condensing
Operational Temperature at Case	T_C	°C	5		35	non condensing
Forward Current	I_F	A			1.5	Stress in excess of the Absolute Maximum Ratings can cause permanent damage to the device.
Reverse Voltage	V_R	V			0	
Output Power	P_{opt}	W			0.9	

Recommended Operational Conditions

	Symbol	Unit	min	typ	max	Measurement Conditions / Comments
Operational Temperature at Case	T_C	°C	0		30	non condensing
Forward Current	I_F	A		1.0	1.3	
Output Power	P_{opt}	W	0.8			

Characteristics at T_{LD} = 25 °C

Parameter	Symbol	Unit	min	typ	max	Measurement Conditions / Comments
Center Wavelength	λ_C	nm	796	806	816	
Spectral Width (FWHM)	$\Delta\lambda$	nm		1	3	P_{opt} = 0.8 W
Temperature Coefficient of Wavelength	$d\lambda / dT$	nm / K		0.28		
Threshold Current	I_{th}	A			0.25	
Slope Efficiency	η_d	W / A		0.8		
Output Power @ 1.3 A	P_{opt}	W / A	0.8			
Forward Voltage	V_F	V	2.0		3.0	P_{opt} = 0.8 W
Cavity Length	L	µm		3900		

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Characteristics at T_{amb} 25 °C cont'd

Parameter	Symbol	Unit	min	typ	max	Measurement Conditions / Comments
Beam propagation factor	M^2			1.2		
Divergence parallel	$\Theta_{\parallel}$	°		8	12	FWHM
Divergence perpendicular	$\Theta_{\perp}$	°	10	12	14	FWHM

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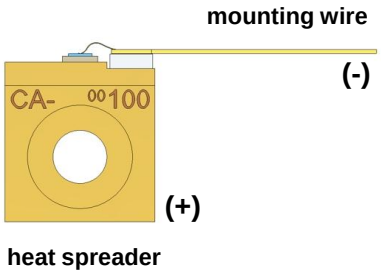
Package Dimensions

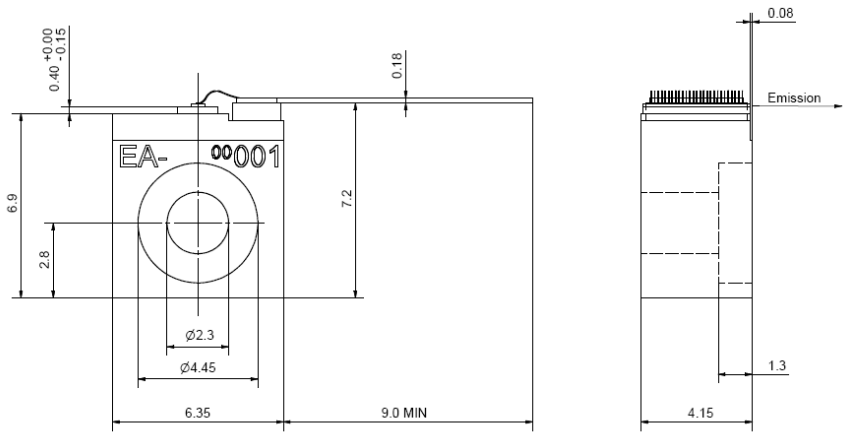
Parameter	Symbol	Unit	min	typ	max	Measurement Conditions / Comments
Height of Emission Plane	h	mm	7.05	7.20	7.35	
C-Mount Thickness	t	mm		4.15		

Package Pinout

Cathode (-)	Mounting Wire
Anode (+)	Housing



Package Drawings



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We focus on power.

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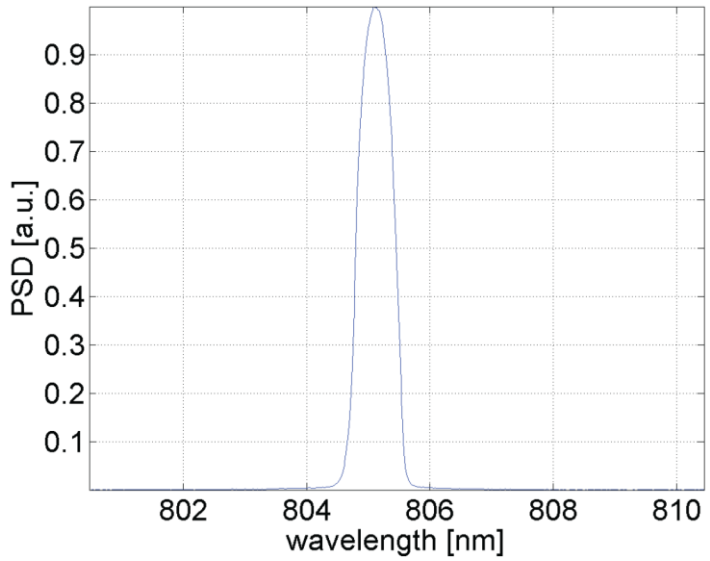
Typical Measurement Results

Spectrum



Performance figures, data and any illustrative material provided in this specification are typical and must be specifically confirmed in writing by eagleyard Photonics before they become applicable to any particular order or contract. In accordance with the eagleyard Photonics policy of continuous improvement specifications may change without notice.

Unpacking, Installation and Laser Safety

Unpacking the laser diodes should only be done at electrostatic safe workstations (EPA). Though protection against electro static discharge (ESD) is implemented in the laser package, charges may occur at surfaces. Please store this product in its original package at a dry, clean place until final use. During device installation, ESD protection has to be maintained.

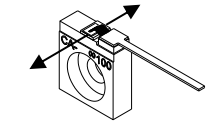
The RWL diode type is known to be sensitive against thermal stress. Operating at moderate temperatures on propper heat sinks willl contribute to a long lifetime of the diode. The chip should be protected against moisture. A water vapor content below 5000 ppm is recommended for applications with high reliability requirements.

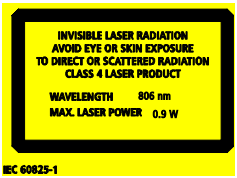
The laser emission from this diode is close to the invisible infrared region of the electromagnetic spectrum. Avoid direct and/or indirect exposure to the free running beam. Collimating the free running beam with optics as common in optical instruments will increase threat to the human eye.

Each laser diode will come with an individual test protocol verifying the parameters given in this document.

Ordering Information:

XSoptix
800 Village Walk #316
Guilford, CT 06437
Ph: 203-401-8093
Email orders to: sales@xsoptix.com
Fax orders to: 800-878-7282





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