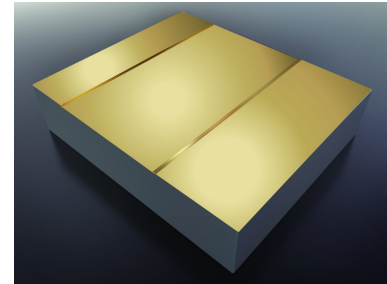


# 808 nm high-power laser chip bare die / chip on C-mount ML1111, ML1522



## OVERVIEW

ML1111 is a single-emitter multi-mode laser diode chip designed to deliver high output power at a wavelength of 808 nm. The laser chip is available as bare die or on a C-type mount (refer to product code ML1522). Please contact the sales team for additional info.



## APPLICATIONS

Pumping  
Material processing

Printing  
Medical

## ELECTRO-OPTICAL CHARACTERISTICS

Parameter	Symbol	Typical value	Unit
Threshold Current	$I_{TH}$	0.5	A
Optical Output Power	$P_{OPT}$	2	W
Operating Current	$I_{OP}$	2.1	A
Operating Voltage	$V_{OP}$	2.0	V
Slope Efficiency	$\eta$	1.1	W/A
Peak Wavelength	$\lambda$	808	nm
Wavelength Temperature Coefficient	$\Delta\lambda/\Delta T$	0.3	nm/K
Spectral Width	$\delta\lambda$	4	nm
Parallel Beam Divergence (FWHM)	$\theta_{  }$	5...8	°
Perpendicular Beam Divergence (FWHM)	$\theta_{\perp}$	33...36	°

All above values are typical for CW operation @ 20°C.

## ABSOLUTE MAXIMUM RATINGS

Parameter	Symbol	Rating	Unit
LD forward current	$I_{FLD}$	3	A
Operating temperature range	$T_{OP}$	-10 - +40 <sup>1</sup>	°C
Storage temperature range	$T_{OP}$	-40 - +85	°C

<sup>1</sup>A non-condensing environment is required for operation temperatures below 10 °C

## MECHANICAL SPECIFICATIONS

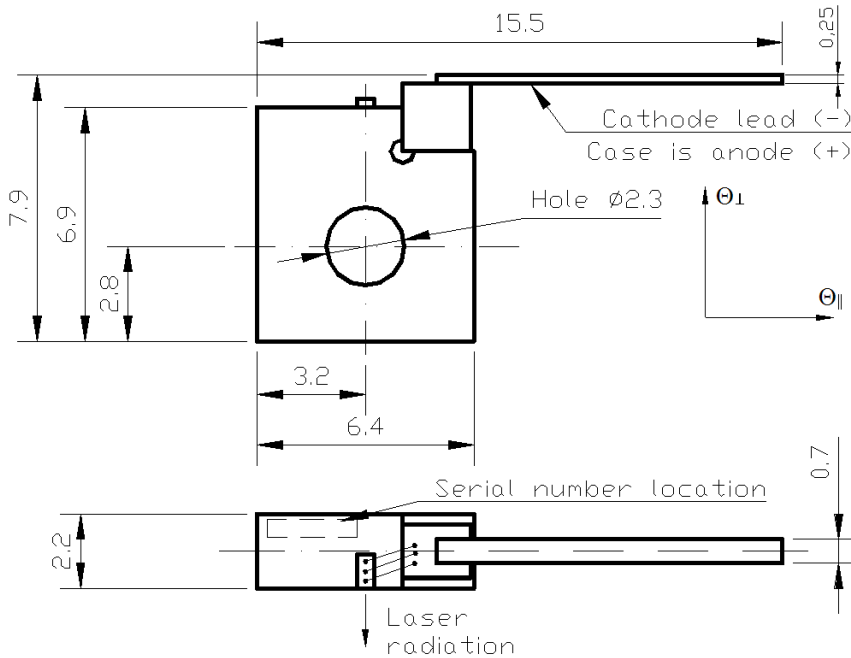
Parameter	Symbol	Value	Unit
Cavity Length	L	1000	$\mu\text{m}$
Chip Width	W	500	mm
Emitter Width	$W_e$	150	$\mu\text{m}$
Chip Thickness	H	130	$\mu\text{m}$

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ML1111, ML1522



## PACKAGE INFORMATION



## SAFETY INFORMATION

- The laser light emitted from this laser diode is invisible but may be harmful to the human eye. Avoid eye exposure to the beam, both direct and reflected.
- Products are subject to the risks normally associated with sensitive electronic devices including static discharge, transients, and overload. Please ensure ESD protection prior to handling the products.
- These Modulight products are not intended for use in systems where product malfunction can reasonably be expected to result in personal injury.



Peak power and wavelength are for safety analysis only, not to present device performance.

## LIABILITY NOTE

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