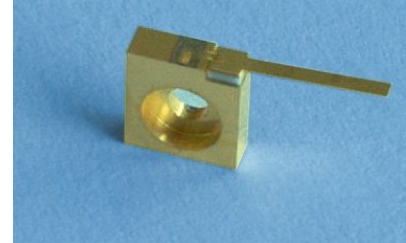


ML1917

1470 nm C-mounted high-power laser chip

Overview

ML1917 is a C-mounted high-performance multi-mode single-emitter designed for applications requiring high-power freespace laser beams at 1470 nm. This laser diode chip is mounted on a standard C-mount heat sink. This laser is specified for CW operation at 1470 nm wavelength with a typical output power of 1.5 W.



Applications

Defense	Industrial	Medical
Range-finding Illumination	Materials Processing Optical Pumping	Low-intensity laser therapy Aesthetic Treatments

Electro-optical Characteristics

Parameter	Symbol	Typical value	Unit
Peak Wavelength	λ	1470 ± 15	nm
Optical Output Power	P_{OPT}	1.5	W
Operating Current	I_{OP}	4.2	A
Operating Voltage	V_{OP}	1.35	V
Slope Efficiency	η	0.38	W/A
Threshold Current	I_{TH}	0.22	A
Wavelength Temperature Coefficient	$\Delta\lambda/\Delta T$	0.6	nm/K
Spectral Width	$\delta\lambda$	10	nm
Parallel Beam Divergence (FWHM)	$\theta_{ }$	8	°
Perpendicular Beam Divergence (FWHM)	θ_{\perp}	32	°
Emitter Width	W_e	100	μm

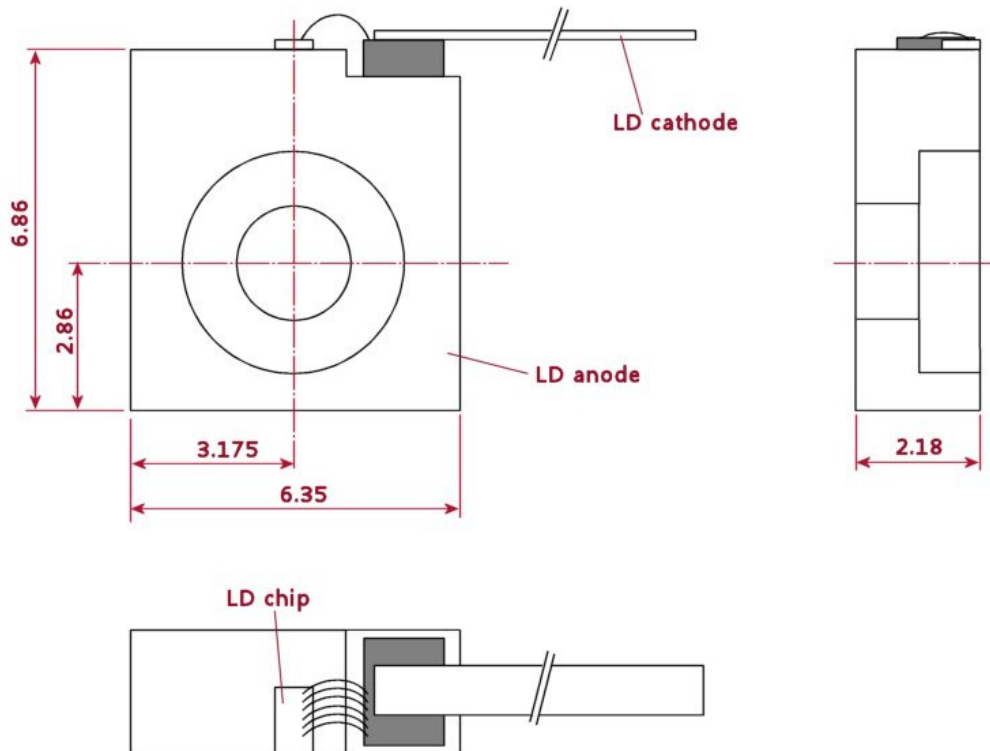
All above values are typical for CW operation @ 20°C.

Absolute Maximum Ratings

Parameter	Symbol	Rating	Unit
LD Forward Current	I_{FLD}	4.4	A
LD Optical Output Power	P_{OPT}	1.6	W
Operating Temperature Range	T_{OP}	0...20 ¹	°C
Operating Temperature Range	T_{ST}	-40...85	°C

¹ A non-condensing environment should be ensured over the useful temperature range.

Package Information



Safety Information

- The laser light emitted from this laser diode is invisible and potentially harmful to the human eye. Avoid eye and skin 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.

DANGER

INVISIBLE LASER RADIATION
 AVOID EYE OR SKIN EXPOSURE TO
 DIRECT OR SCATTERED BEAM

Peak power:	2 W
Wavelength:	1470 nm
Class 4 laser product	

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

Liability note

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