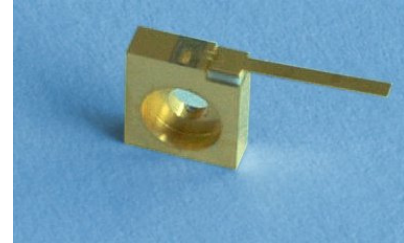


ML1845

1350 nm C-mounted high-power laser chip

Overview

ML1845 is a C-mounted multi-mode laser diode chip, operating at 1350 nm wavelength with a typical output power of 1 W. C-mounted single-emitter chips are versatile and convenient for bringing laser light in many different applications. These multimode lasers provide efficient and robust stable laser light output in CW operation. Adequate cooling should be ensured during operation.



Applications

Industrial	Medical
Photometry Sensing	Aesthetic Treatments Surgery

Electro-optical Characteristics

Parameter	Symbol	Typical value	Unit
Peak Wavelength	λ	1350 ± 20	nm
Optical Output Power (peak power)	P_{OPT}	1	W
Operating Current	I_{OP}	5	A
Operating Voltage	V_{OP}	1.3	V
Slope Efficiency	η	0.28	W/A
Threshold Current	I_{TH}	1	A
Wavelength Temperature Coefficient	$\Delta\lambda/\Delta T$	0.5	nm/K
Spectral Width	$\delta\lambda$	6	nm
Parallel Beam Divergence (FWHM)	$\theta_{ }$	11	°
Perpendicular Beam Divergence (FWHM)	θ_{\perp}	37	°
Emitter Width	W_E	150	μm

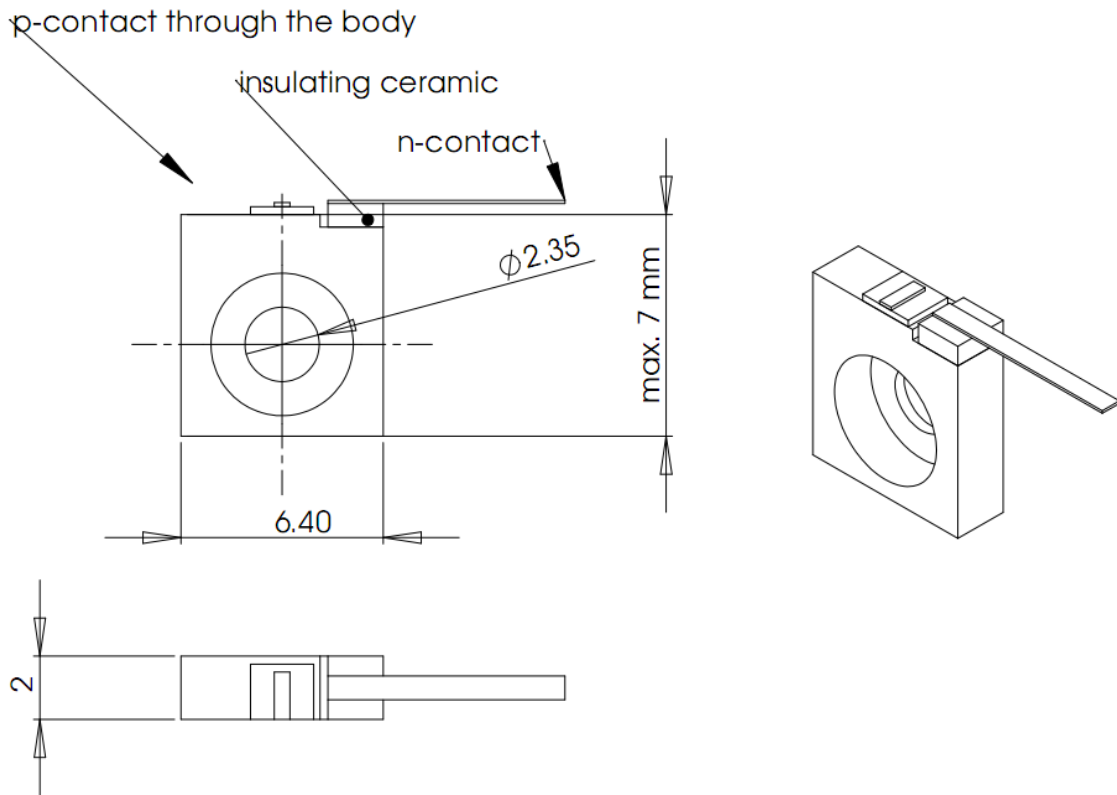
All above values are typical for a mounted laser under CW operation @ 20°C.

Absolute Maximum Ratings

Parameter	Symbol	Rating	Unit
LD Reverse Voltage	V_{RLD}	2	V
LD Forward Current	I_{FLD}	7	A
Operating Temperature	T_{OP}	0...40	°C
Storage Temperature	T_{STG}	-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.



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

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