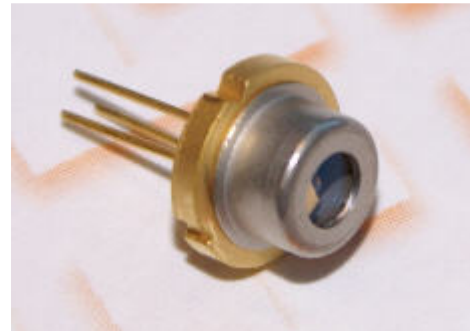


830 nm single mode 80 mW laser in 9 mm TO-can ML1546



OVERVIEW

ML1546 is a single transverse mode Fabry-Perot laser chip in a 9 mm TO-can. The laser delivers up to 80 mW output power at the wavelength of 830 nm. The product is designed for CW operation with a low fast axis divergence. This chip is also available as a bare die (refer to the product ML1544).



APPLICATIONS

Pointing
Illumination

Measurement
Range-finding

ELECTRO-OPTICAL CHARACTERISTICS (PRELIMINARY)

Parameter	Symbol	Typical value	Unit
Threshold Current	I_{TH}	22	mA
Optical Output Power	P_{OPT}	80	mW
Operating Current	I_{OP}	100	mA
Operating Voltage	V_{OP}	2.0	V
Slope Efficiency	η	1.0	W/A
Peak Wavelength	λ	830 ± 15	nm
Wavelength Temperature Coefficient	$\Delta\lambda/\Delta T$	0.24	nm/K
Spectral Width	$\delta\lambda$	1	nm
Parallel Beam Divergence (FWHM)	$\theta_{ }$	6	°
Perpendicular Beam Divergence (FWHM)	θ_{\perp}	26	°

All above values are typical for CW operation @ 25°C.

ABSOLUTE MAXIMUM RATINGS

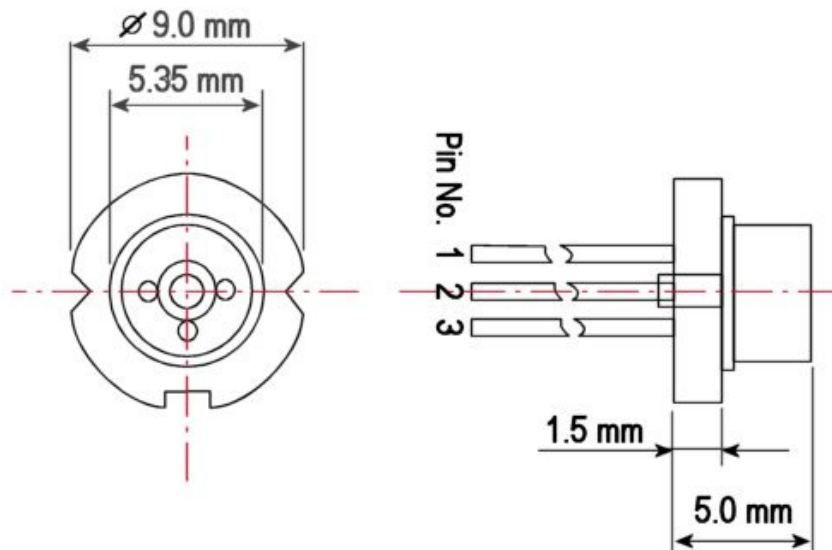
Parameter	Symbol	Rating	Unit
LD reverse voltage	V_{RLD}	2	V
LD forward current	I_{FLD}	140	mA
Operating temperature range	T_{OP}	-20...+60	°C

**830 nm single mode
80 mW laser in 9 mm TO-can
ML1546**



PACKAGE INFORMATION

The laser is housed inside a standard 9-mm TO-can (SOT-148), covered by a flat window. More specific package information is available per request.



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.

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