

830 nm single mode 50 mW laser in TO-56 ML1545



OVERVIEW

ML1545 is a single transverse mode Fabry-Perot laser chip in a TO-56 can. The laser delivers 50 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 ML1528).



APPLICATIONS

ELECTRO-OPTICAL CHARACTERISTICS

Parameter	Symbol	Min	Typical value	Max	Unit
Threshold Current	I_{TH}	-	20	26	mA
Optical Output Power	P_{OPT}	50			mW
Operating Current	I_{OP}	-	68	85	mA
Operating Voltage	V_{OP}	-	1.8	2.3	V
Slope Efficiency	η	0.85	1		W/A
Peak Wavelength	λ	815	830	845	nm
Wavelength Temperature Coefficient	$\Delta\lambda/\Delta T$	-	0.25	-	nm/K
Spectral Width	$\delta\lambda$	-	0.3	1.0	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}	100	mA
Operating temperature range	T_{OP}	-20...+60	°C

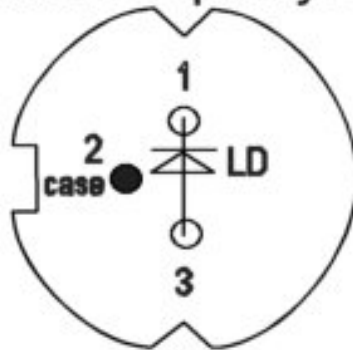
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PACKAGE INFORMATION

The laser is housed inside a standard TO-56 can, covered by a flat window. More specific package information is available per request.

Bottom view -pin layout #3



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.



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