ML4790-760

760 nm TO-canned high-power lasers for QCW applications

Overview

ML4790-760 is a high-performance multi-mode 760 nm laserdiode, housed in a 9-mm TO-can (SOT-148) package, covered by a flat window. This multimode lasers is designed for QCW operation, and it is easy to accommodate in various applications. A monitoring photodiode can be included in the package as an option. Active cooling is recommended.



Applications

Defense	Industrial
Range-finding	Illumination
Illumination	Imaging

Electro-optical Characteristics, Typical Values

Parameter	Symbol	Typical value	Unit
Peak Wavelength	λ	760	nm
Optical Output Peak Power	P_{OPT}	8	W
Operating Current	I_{OP}	8	A
Operating Voltage	V_{OP}	1.9	V
Threshold Current	I_{TH}	1000	mA
Slope Efficiency	η	1.15	W/A
Wavelength - Temp. Coefficient	$\Delta\lambda/\Delta T$	0.25	nm/K
Spectral Width (FWHM)	$\delta\lambda$	2	nm
Parallel Beam Divergence (FWHM)	$\theta \parallel$	10	°
Perpendicular Beam Divergence (FWHM)	$\theta\perp$	30	°
Emitting area width	W_E	150	µm

All values are typical for QCW (10 µs, 25 kHz) operation @ 20°C.

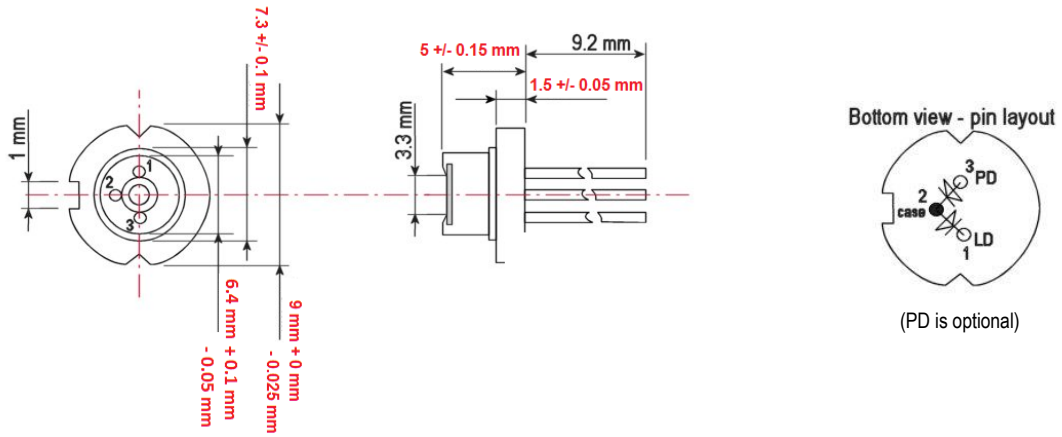
Absolute Maximum Ratings

Parameter	Symbol	Rating	Unit
LD Reverse Voltage	V_{RLD}	0	V
LD Forward Current	I_{FLD}	10	A
Operating Temperature	T_{OP}	0…40 [1]	°C
Storage Temperature	T_{STG}	-40…85	°C

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

Package Information

The default package is a 9 mm TO-can package (SOT-148). The most important dimensions are shown in the drawing below. Monitor photodiode and collimation optics can be included per customer request - please contact Modulight sales team for more information.



Safety Information

- The laser light emitted from this laser device may be invisible. The laser light is 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.
- Thise 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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