ML1979

1625 nm high-power single transverse mode TO-can laser

Overview

Modulight's ML1979 is a high-performance single transverse mode 1625 nm FP laser in a 5.6 mm TO-can. The laser emits ≥ 150 mW pulsed peak power (10 µs pulse width, 1% duty cycle) at 1625 nm wavelength. ML1979 is designed to be used as light source in fiber optic test and measurement equipment.



Applications

Defense	Industrial	Communications
Test & measurement	Test & measurement	Test & measurement

Electro-optical Characteristics

Parameter	Symbol	Min.	Typical	Max.	Unit
Central Wavelength (I_{OP} = 750 mA)	λ	1590	1625	1650	nm
Optical Output Power (Peak Power)	P_{OPT}	150	180	-	mW
Operating Current (@ P_{OPT})	I_{OP}	-	750	900	mA
Operating Voltage (P_{OPT} = 40 mW, CW)	V_{OP}	-	1.2	2.0	V
Slope Efficiency	η	-	0.25	-	W/A
Threshold Current	I_{TH}	-	50	-	mA
Spectral Width	Δλ	-	-	7	nm

All above values are for operation @ 25°C. If not otherwise stated, the characteristics are for operation under pulse current (pulse width = 10 µs and duty cycle 1 %).

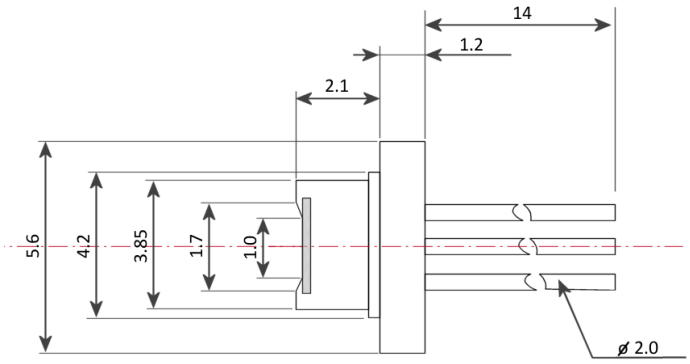
Absolute Maximum Ratings

Parameter	Symbol	Rating	Unit
LD Forward Current	I_{FLD}	1000	mA
Operating Temperature Range	T_{OP}	10…50 [1]	°C
Operating Temperature Range	T_{ST}	-40…85	°C

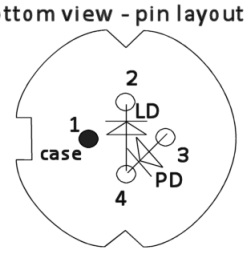
[1] A non-condensing environment is required for operation temperatures below 10 °C.

Mechanical Specification

Side view



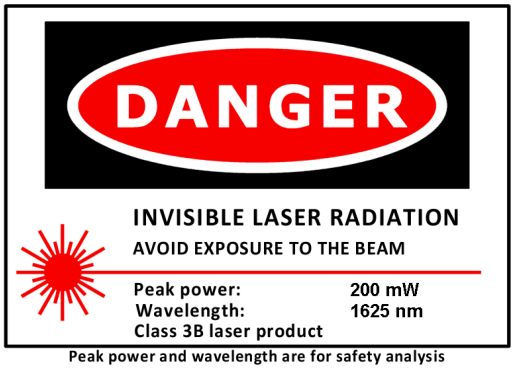
Bottom view - pin layout #3



All dimensions are millimeters (mm). The default pin layout is #3 (shown). Other pin layouts are available as per customer request. Monitoring photodiode is optional, not included by default.

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.

Liability note

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