Innolume GmbH
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LD-1320-UM-3W

Multimode Pigtail Module with Uncooled Laser Diode @ 1320nm

Features:

- CW or QCW operation (down to 1µs pulse width)
- High reliability, burn-in tested
- Hermetically sealed package with isolated electrical contacts
- Optionally: 200-600µm diam. fibers available for higher output power
- Optionally: High Power SMA optical connector

Application:

- Medical

Preliminary Specification for engineering samples

DATE: 8th Feb. 2009

SPECIFICATIONS

Test conditions: CW operation at 25°C case temperature

Parameters	Value	Unit
Output power (P_{out})	3	W
Operating current (I_{op})	8 ± 1	A
Threshold current (I_{th})	0.5 ± 0.2	A
Operating voltage (V_{op})	1.3 ± 0.1	V
Central wavelength	1320 ± 10	nm
Wavelength temperature tunability	0.55 ± 0.05	nm/°C
Spectral width (FWHM)	12 ± 3	nm
Fiber core diameter	105	µm
Fiber cladding diameter	125	µm
Fiber Numerical Aperture	0.22	
Fiber length	1.5	m
Power drop during 100 hours burn-in test[1]	<1	%

[1] Burn-in test conditions: case temperature 40°C, output power 3W

ABSOLUTE MAXIMUM RATINGS

Parameters	Min	Max	Unit
Laser Diode reverse voltage		2	V
Forward current		I_{op} + 2	A
Storage temperature range	5	80	°C
Case operating temperature range	5	40	°C

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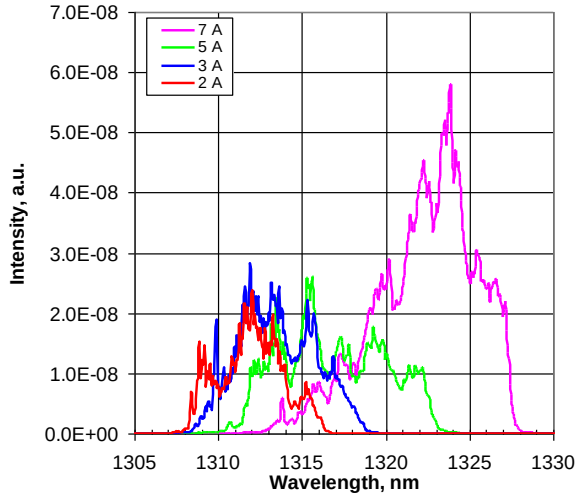
TYPICAL SPECTRUM PERFORMANCE (CW operation at 25°C case temperature)



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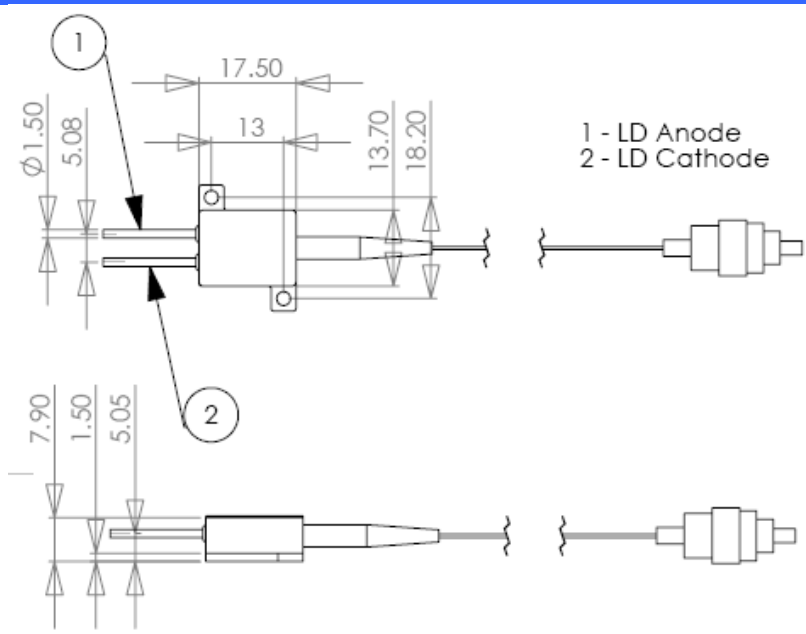
DIMENSIONS (All sizes in mm)



SAFETY AND OPERATING INSTRUCTIONS

The laser light emitted from this module is invisible and will harmful to the human eye. Avoid looking directly into the fiber output or into the collimated beam along its optical axis when the device is in operation. Proper laser safety eyewear must be worn during operation.

Absolute Maximum Ratings may be applied to the Laser Diode for short period of time only. Exposure to maximum ratings for extended period of time or exposure above one or more max ratings may cause damage or affect the reliability of the device. Operating the laser diode outside of its maximum ratings may cause device failure or a safety hazard. Power supplies used with the component must be employed such that the maximum peak optical power cannot be exceeded. A proper heatsink for the laser diode module on thermal radiator is required.

ESD PROTECTION – Electrostatic discharge is the primary cause of unexpected laser diode failure. Take extreme precaution to prevent ESD. Use wrist straps, grounded work surfaces and rigorous antistatic techniques when handling laser diodes.

NOTE: Innolume product specifications are subject to change without notice.