


## 10W 9xxnm Uncooled Multimode Laser Diode Module

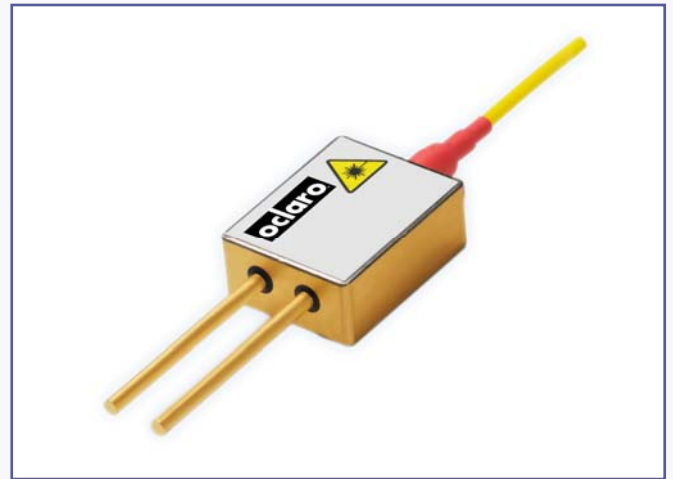
BMU10A-9xx-01/02-R

### Features:

- High output powers of 10W
- 0.15NA or 0.22NA 105 $\mu$ m core multimode optical fiber
- Hermetically sealed 2-pin package
- Floating anode/cathode
- High reliability
- Excellent solderability
- Standard wavelengths at 915, 940, 960, and 975nm (others available on request)
- RoHS compliant 

### Applications:

- Fiber laser pumping
- Direct applications
- Material processing
- Printing
- Medical



The Oclaro BMU10A-9xx-01/02-R multimode laser diode module series has been designed to provide the high power and reliability required for pumping next generation solid-state and fiber lasers, and for direct applications. The module includes a multimode laser diode chip with E2 front mirror passivation that prevents Catastrophic Optical Damage (COD) to the laser diode facet even at very high power levels. The coupling process allows for high output powers that are very stable with both time and temperature.

## Operating Characteristics

Conditions unless otherwise stated:

Parameters at 25°C heat sink temperature and use of a thermal interface material rated for a thermal contact resistance of less than 1.3cm<sup>2</sup> K/W (0.2in<sup>2</sup> K/W). Optical fiber with 105µm core diameter and 0.15 or 0.22NA.

Parameter	Symbol	Typical	Unit
Fiber Coupled CW Output Power	$P_{op}$	10	W
Center Wavelength [1] BMU10A-915-01/02-R BMU10A-940-01/02-R BMU10A-960-01/02-R BMU10A-975-01/02-R BMU10A-975B-01/02-R	$\lambda_{c915}$ $\lambda_{c940}$ $\lambda_{c960}$ $\lambda_{c975}$ $\lambda_{c975B}$	915 ± 10 940 ± 10 960 ± 10 975 ± 10 976 ± 3	nm
Spectral Width (95% of Power)	$\Delta\lambda$	6	nm
Threshold Current	$I_{th}$	600	mA
Slope Efficiency	$\eta_D = P_{op} / (I_{op} - I_{th})$	0.95	W/A
Conversion Efficiency	$H = P_{op} / (V_{op} \times I_{op})$	48	%
Operating Current	$I_{op}$	11.5	A
Operating Voltage	$V_{op}$	1.9	V
Operating Temperature	$T_{op}$	25 ± 5	°C

[1] Reduced wavelength window/extended range available on request (900-1070nm).

## Absolute Ratings

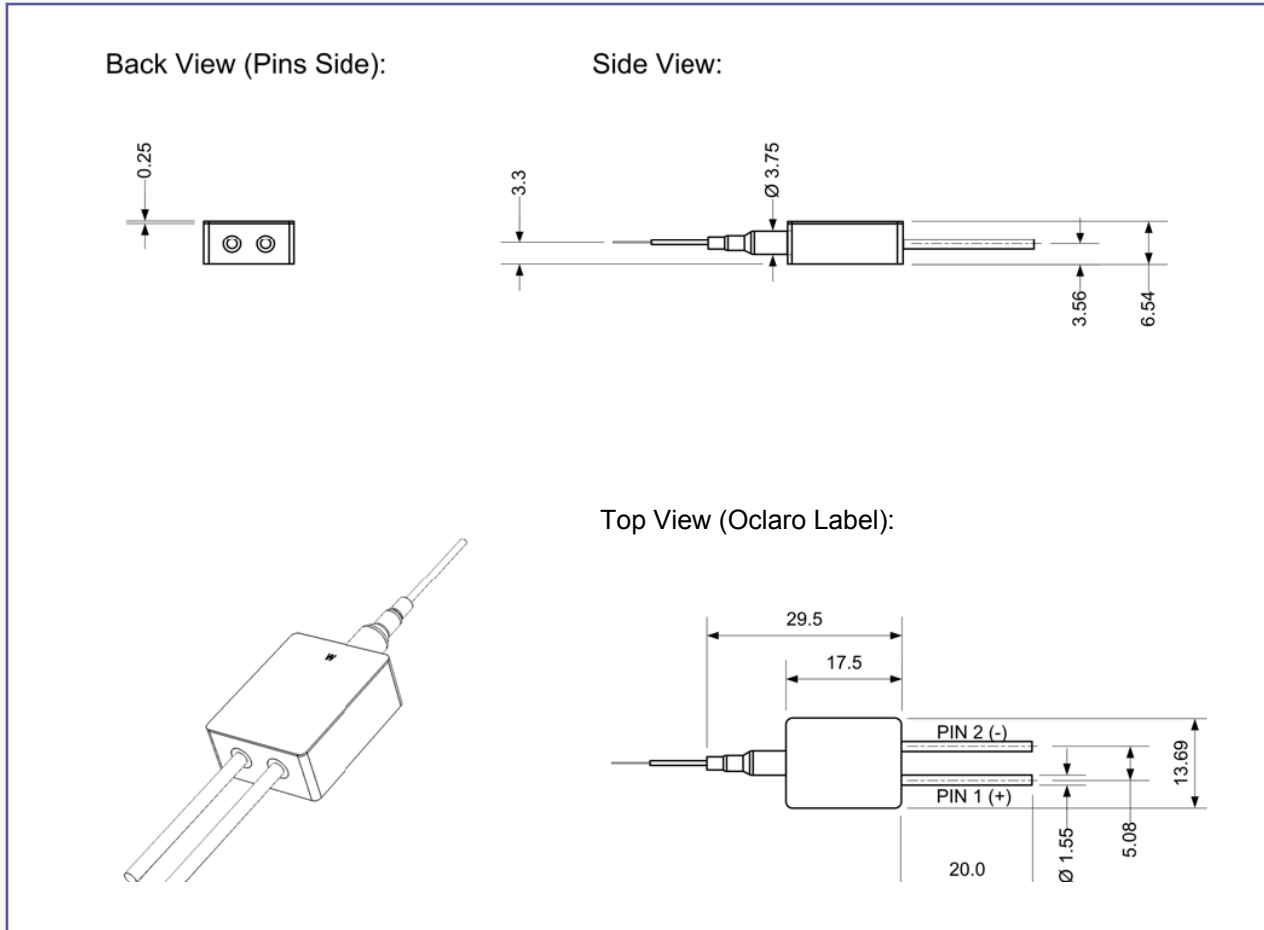
Parameter	Min	Max	Unit
ESD	-	500	V
Storage temperature	-40	85	°C
Lead soldering temperature	-	250	°C
Lead soldering time	-	10	Sec
Operating case temperature	15	60	°C
Relative humidity	5	85	%

## Fiber Specification

Parameter	Min	Typ	Max	Unit
Buffer diameter	230	250	270	μm
Cladding diameter	123	125	128	μm
Core diameter	102	104	106	μm
Numeric aperture	-	0.15 0.22	-	-
Fiber length	-	1.5	-	m
Fiber bend radius	25	-	-	mm

**Remarks:** Qualification reports and application notes are available upon request.

Package Dimensions (mm)



Remarks: Mounting clip is available upon request

**RoHS Compliance**



Oclaro is fully committed to environment protection and sustainable development and has set in place a comprehensive program for removing polluting and hazardous substances from all of its products. The relevant evidence of RoHS compliance is held as part of our controlled documentation for each of our compliant products. RoHS compliance parts are available to order, please refer to the ordering information section for further details.

**Ordering Information**

BMU10A-915-01-R	10W 915nm Multimode Laser Diode Module with 0.15NA fiber
BMU10A-940-01-R	10W 940nm Multimode Laser Diode Module with 0.15NA fiber
BMU10A-960-01-R	10W 960nm Multimode Laser Diode Module with 0.15NA fiber
BMU10A-975-01-R	10W 975nm Multimode Laser Diode Module with 0.15NA fiber
BMU10A-975B-01-R	10W 976 ± 3 nm nm Multimode Laser Diode Module with 0.15NA fiber
BMU10A-915-02-R	10W 915nm Multimode Laser Diode Module with 0.22NA fiber
BMU10A-940-02-R	10W 940nm Multimode Laser Diode Module with 0.22NA fiber
BMU10A-960-02-R	10W 960nm Multimode Laser Diode Module with 0.22NA fiber
BMU10A-975-02-R	10W 975nm Multimode Laser Diode Module with 0.22NA fiber
BMU10A-975B-02-R	10W 976 ± 3 nm nm Multimode Laser Diode Module with 0.22NA fiber

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