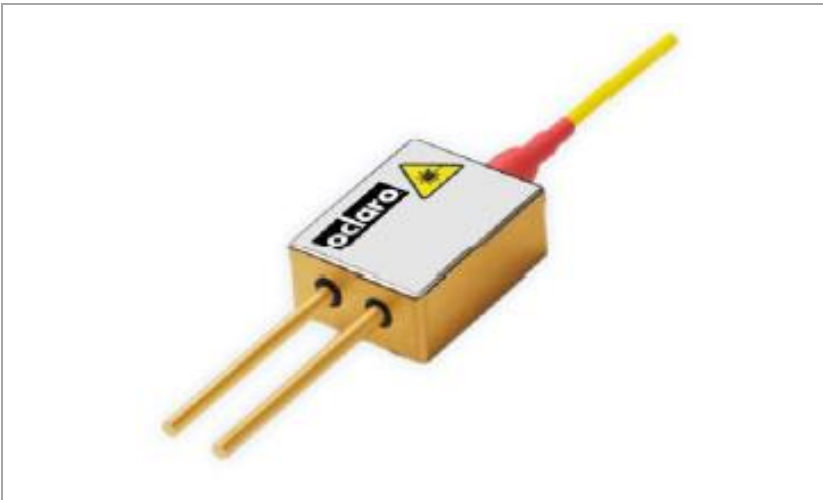



9-10W 9xxnm Uncooled Multimode Laser Diode Module

BMU9/10A-9xx-01/02-R



The Oclaro BMU9/10A-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 fibre 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.

Features:

- High output powers of up to 10W
- 0.15NA or 0.22NA 105 μ 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

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 1.3cm² K/W. Optical fibre with 105µm core diameter and 0.15NA or 0.22NA.

Parameter	Min	Typ	Max	Unit	Conditions
CW Output Power BMU10A-915/940/960-02-R BMU9-915/940/960-01-R BMU9-975-01/02-R	10 9 9			W	
Centre Wavelength [1] BMU9/10A-915-01/02-R BMU9/10A-940-01/02-R BMU9/10A-960-01/02-R BMU9-975-01/02-R BMU9-975B-01/02-R	905 930 950 965 973	915 940 960 975 976	925 950 970 985 979	nm	
Spectral Width (-13dB)		6		nm	
Threshold Current		0.6		A	
Slope Efficiency		0.95		W/A	
Operating Current			12	A	
Operating Voltage		1.9		V	
Wallplug Efficiency		48		%	

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

Absolute Ratings

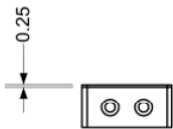
Parameter	Min	Typ	Max	Unit	Conditions
ESD	–		500	V	HBM, C=100pF, R=1.5 kOhm
Storage temperature	-40		85	°C	non-condensing
Lead soldering temperature	–		320	°C	
Lead soldering time	–		10	Sec	
Operating case temperature	15		60	°C	Reliability impacted if operating point deviates from reference condition
Relative humidity	5		85	%	
Fiber bend radius	25			mm	

Fiber Specification

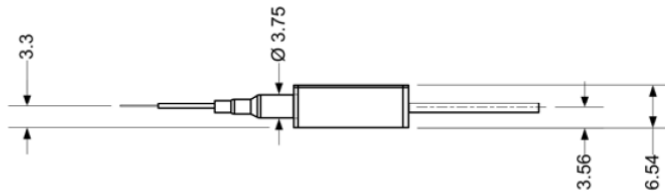
Parameter	Min	Typ	Max	Unit	Conditions
Buffer diameter	230	250	270	µm	
Cladding diameter	123	125	128	µm	
Core diameter	102	105	108	µm	
Numeric aperture		0.15		NA	
		0.22			
Fiber length	-	2	-	m	

Package Dimensions (mm)

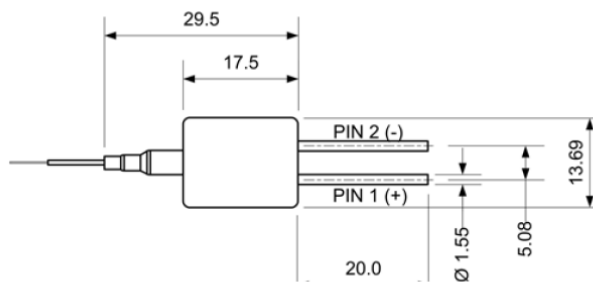
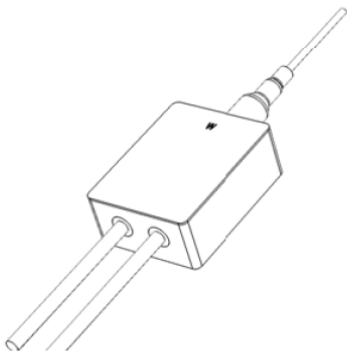
Back View (Pins Side):



Side View:



Top View (Oclaro Label):



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-915-02-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
BMU9-975-02-R	9W 975nm Multimode Laser Diode Module with 0.22NA fiber
BMU9-975B-02-R	9W 976±3 nm Multimode Laser Diode Module with 0.22NA fiber
BMU9-915-01-R	9W 915nm Multimode Laser Diode Module with 0.15NA fiber
BMU9-940-01-R	9W 940nm Multimode Laser Diode Module with 0.15NA fiber
BMU9-960-01-R	9W 960nm Multimode Laser Diode Module with 0.15NA fiber
BMU9-975-01-R	9W 975nm Multimode Laser Diode Module with 0.15NA fiber
BMU9-975B-01-R	9W 976±3 nm Multimode Laser Diode Module with 0.15NA fiber

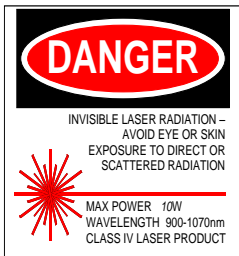
Contact Information

www.oclaro.com

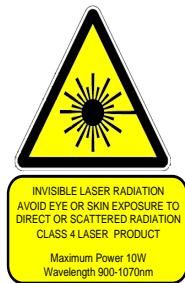
Important Notice

Performance figures, data and any illustrative material provided in this data sheet are typical and must be specifically confirmed in writing by Oclaro before they become applicable to any particular order or contract. In accordance with the Oclaro policy of continuous improvement specifications may change without notice. Further details are available from any Oclaro sales representative.

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THIS PRODUCT COMPLIES WITH 21CFR 1040.10



REFERENCE IEC 60825-1 Edition 2.0



Caution - use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.