


7W/6W 9xxnm Uncooled Multimode Laser Diode Module

MUx-9xx-01/04

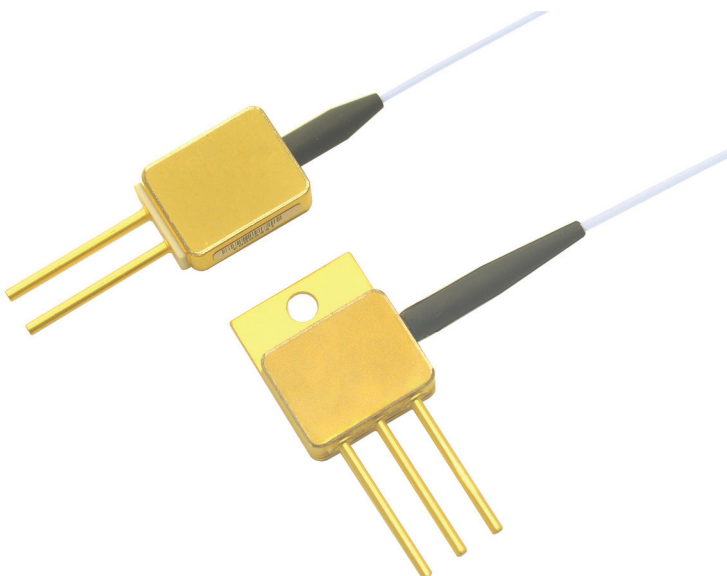
The Bookham MUx-9xx-01/04 multimode laser diode module series has been designed to provide the high power and reliability required for pumping next generation solid-state and fiber lasers, and for direct applications. The module includes a multimode laser diode chip with E2 front mirror passivation that 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.

Features:

- High output powers of 7W/6W
- 0.22NA 105µm core multimode fiber pigtail (0.15NA upon request)
- Hermetically sealed 3-pin and 2-pin packages
- 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



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 (0.2in² K/W). Pigtail fiber with 105µm core diameter and 0.22NA.

Parameter	Symbol	Typical	Unit
Fiber Coupled CW Output Power MU7-915-01/04 MU7-940-01/04 MU7-960-01/04 MU6-975-01/04	P_{op915} P_{op940} P_{op960} P_{op975}	7 7 7 6	W
Center Wavelength [1] MU7-915-01/04 MU7-940-01/04 MU7-960-01/04 MU6-975-01/04	λ_{c915} λ_{c940} λ_{c960} λ_{c975}	915 ± 10 940 ± 10 960 ± 10 975 ± 10	nm
Spectral Width (95% of Power)	$\Delta\lambda$	6	nm
Threshold Current	I_{th}	500	mA
Slope Efficiency	$\eta_o = P_{op} / (I_{op} - I_{th})$	0.95	W/A
Operating Current MU7-915-01/04 MU7-940-01/04 MU7-960-01/04 MU6-975-01/04	I_{op915} I_{op940} I_{op960} I_{op975}	8.5 8.5 8.5 7.5	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

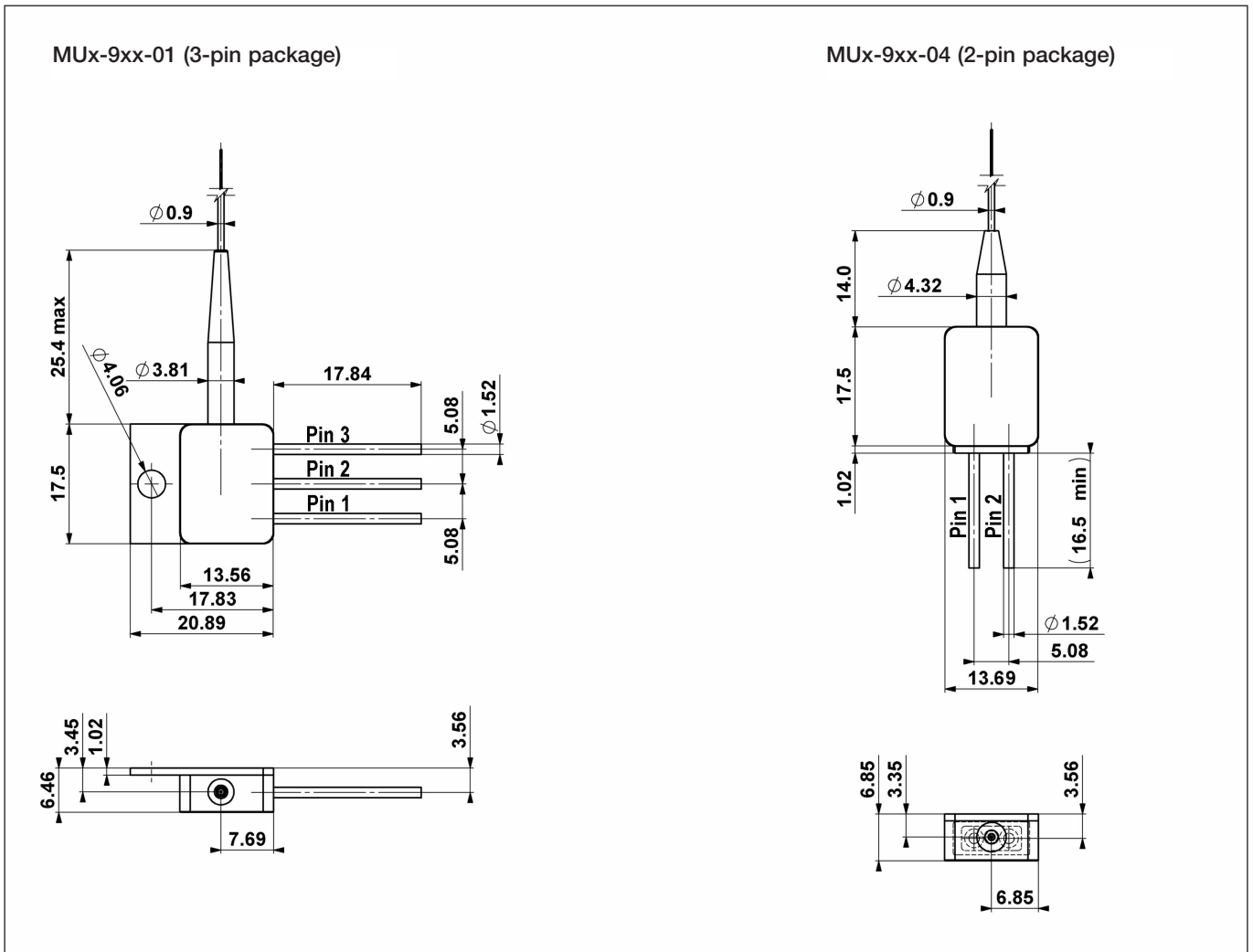
Parameter	Min	Max	Unit
ESD	-	500	V
Storage Temperature	-40	85	°C
Lead Soldering Temperature	-	250	°C
Lead Soldering Time	-	10	Sec
Operating Case Temperature	0	45	°C
Relative Humidity	5	85	%

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	-	0.22 (0.15)	-	-
Fiber Length	-	1.5	-	m

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

Package Dimensions (mm)



Connection

Pin #	MUx-9xx-01	MUx-9xx-04
1	Laser Diode Anode (+)	Laser Diode Anode (+)
2	Laser Diode Cathode (-)	Laser Diode Cathode (-)
3	Not Used (can be removed)	-

RoHS Compliance



Bookham 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:

(3-pin housing)

MU7-915-01	7W 915nm Multimode Laser Diode Module with 0.22NA fiber
MU7-940-01	7W 940nm Multimode Laser Diode Module with 0.22NA fiber
MU7-960-01	7W 960nm Multimode Laser Diode Module with 0.22NA fiber
MU6-975-01	6W 975nm Multimode Laser Diode Module with 0.22NA fiber
MU7-915-01 with 0.15NA	7W 915nm Multimode Laser Diode Module with 0.15NA fiber
MU7-940-01 with 0.15NA	7W 940nm Multimode Laser Diode Module with 0.15NA fiber
MU7-960-01 with 0.15NA	7W 960nm Multimode Laser Diode Module with 0.15NA fiber
MU6-975-01 with 0.15NA	6W 975nm Multimode Laser Diode Module with 0.15NA fiber

(2-pin housing)

MU7-915-04	7W 915nm Multimode Laser Diode Module with 0.22NA fiber
MU7-940-04	7W 940nm Multimode Laser Diode Module with 0.22NA fiber
MU7-960-04	7W 960nm Multimode Laser Diode Module with 0.22NA fiber
MU6-975-04	6W 975nm Multimode Laser Diode Module with 0.22NA fiber
MU7-915-04 with 0.15NA	7W 915nm Multimode Laser Diode Module with 0.15NA fiber
MU7-940-04 with 0.15NA	7W 940nm Multimode Laser Diode Module with 0.15NA fiber
MU7-960-04 with 0.15NA	7W 960nm Multimode Laser Diode Module with 0.15NA fiber
MU6-975-04 with 0.15NA	6W 975nm Multimode Laser Diode Module with 0.15NA fiber

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