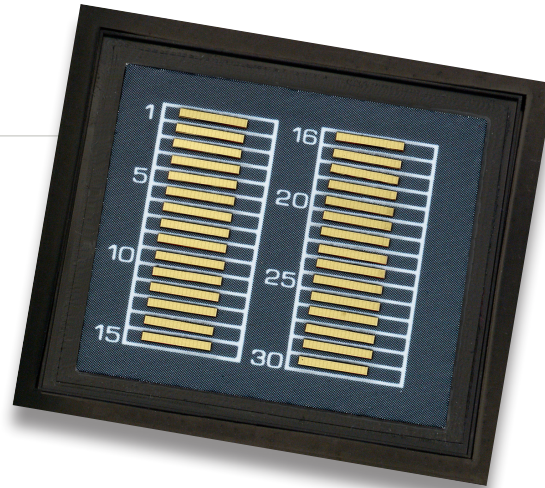


PART NUMBER: UMB800C100  
LASER DIODE BAR

#### FEATURES AND BENEFITS



- Excellent Solderability
- Available With Any Microchannel Cooled Configuration
- Lot Tested
- Available Wavelengths (790-980nm)

#### OPTICAL CHARACTERISTICS

Parameter	Conditions	Min	Typ	Units
CW Power Output	112A at 25°C Heat Sink	100	—	W
Operating Current	100W at 25°C Heat Sink	—	112	A
Threshold Current	25°C Heat Sink	—	16	A
Slope Efficiency	25°C Heat Sink	—	1.05	W/A
Efficiency	100W at 25°C Heat Sink	—	50	%
Number of Emitters	—	—	25	
Emitter Size	—	—	200x1	μm
Emitter Pitch	—	—	365	μm
Center Wavelength	100W at 25°C Heat Sink	—	808	nm
Wavelength Tolerance	100W at 25°C Heat Sink	—	+/-3	nm
Spectral Width	100W at 25°C Heat Sink	—	1.5	nm
Wavelength Shift	—	—	0.25	nm/°C
Beam Divergence FWHM	—	—	40x10	°x°
Polarization	—	—	TE	

#### ELECTRICAL CHARACTERISTICS

Parameter	Conditions	Min	Typ	Units
Series Resistance	25°C Heat Sink	—	0.002	ohms
Operating Voltage	25°C Heat Sink, 100W	—	1.8	V

#### MECHANICAL CHARACTERISTICS

Parameter	Typical
Bar Width	9.6 mm
Bar Thickness	135 μm
Bar Cavity Length	2000 μm

#### NOTES

- (1) These specifications apply for operation at 808nm. Other wavelengths available upon request.  
 (2) A dry nitrogen environment should be provided by the user when storing and operating at temperatures below ambient dew point.



100W CW

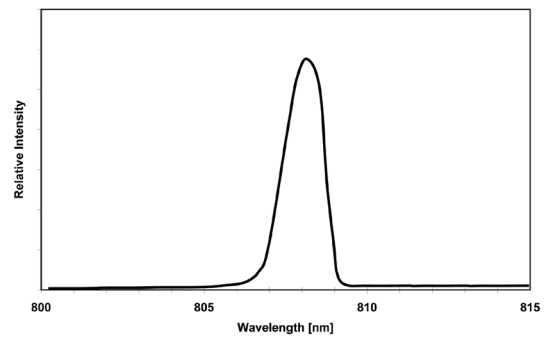
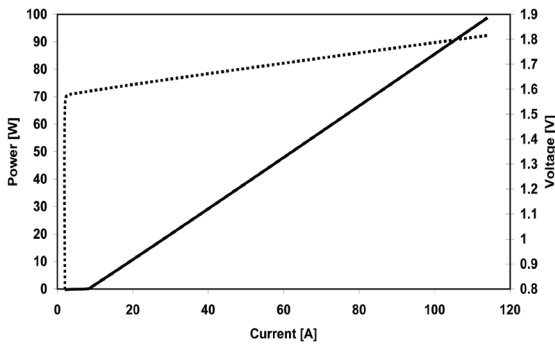
> ABSOLUTE MAXIMUM RATINGS

Parameter	Conditions
Reverse Current	0 A
Reverse Voltage	0 V
Operating Temperature Range	-40°C to 70°C
Storage Temperature Range	-40°C to 85°C

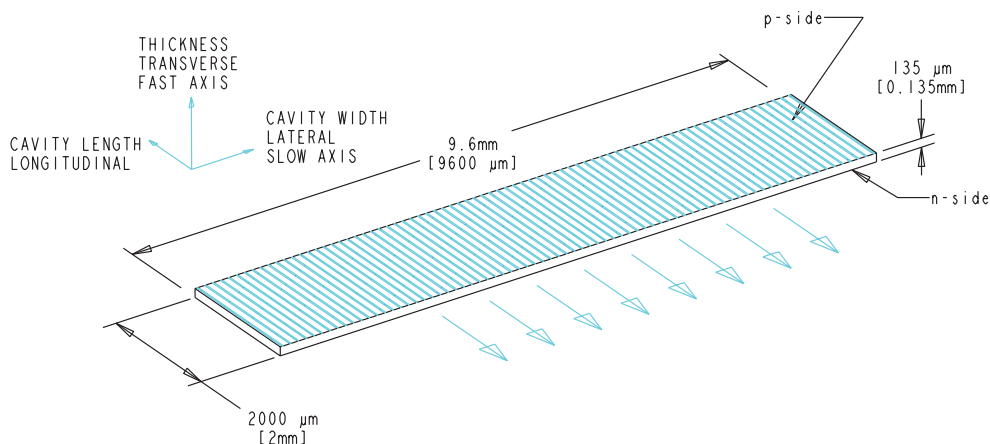
> SOLDERING CHARACTERISTICS

Parameter	Conditions
Metalization	1000 Å Au over Pt barrier

> OPTICAL CHARACTERISTICS (TYPICAL)



> MECHANICAL CHARACTERISTICS



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**⚠ DANGER ⚠**

**INVISIBLE LASER RADIATION**

AVOID EYE OR SKIN EXPOSURE TO DIRECT OR SCATTERED RADIATION

\* Diode laser  
SW & up, 790-1560nm  
CLASS IV

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**⚠ WARNING ⚠**

ELECTROSTATIC DISCHARGE SENSITIVE DEVICE  
REQUIRING SPECIAL HANDLING

Rev. A 02/08 ISO 9001:2000 Registered