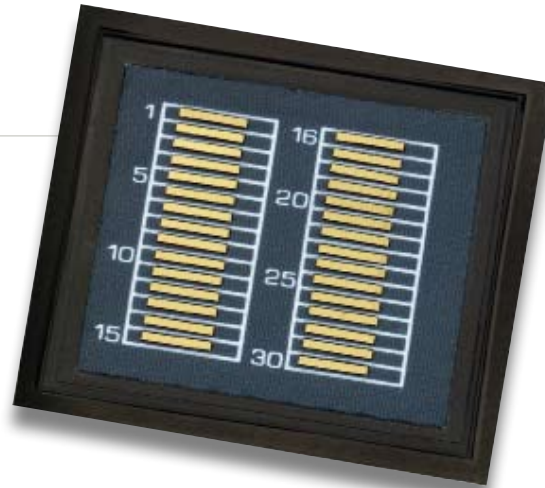


PART NUMBER: UMB500C040
LASER DIODE BAR



> FEATURES AND BENEFITS

- Excellent Solderability
- Available With Any Golden Bullet® Configuration
- Lot Tested
- Available Wavelengths (790-980nm)

> OPTICAL CHARACTERISTICS

Parameter	Conditions	Typical	Units
CW Power Output	47A at 25°C Heat Sink	40	W
Operating Current	40W at 25°C Heat Sink	47	A
Threshold Current	25°C Heat Sink	12	A
Slope Efficiency	25°C Heat Sink	1.15	W/A
Efficiency	40W at 25°C Heat Sink	51	%
Number of Emitters	—	50	
Emitter Size	—	100x1	µm
Emitter Pitch	—	185	µm
Center Wavelength	40W at 25°C Heat Sink	808	nm
Wavelength Tolerance	40W at 25°C Heat Sink	+/-3	nm
Spectral Width	40W at 25°C Heat Sink	1.6	nm
Wavelength Shift	—	0.25	nm/°C
Beam Divergence FWHM	—	38x7	°x'
Polarization	—	TE	

> ELECTRICAL CHARACTERISTICS

Parameter	Conditions	Typical	Units
Series Resistance	25°C Heat Sink	0.002	ohms
Operating Voltage	25°C Heat Sink, 40W	1.7	V

> MECHANICAL CHARACTERISTICS

Parameter	Typical
Bar Width	9.6 mm
Bar Thickness	135 µm
Bar Cavity Length	1200 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.

40W CW

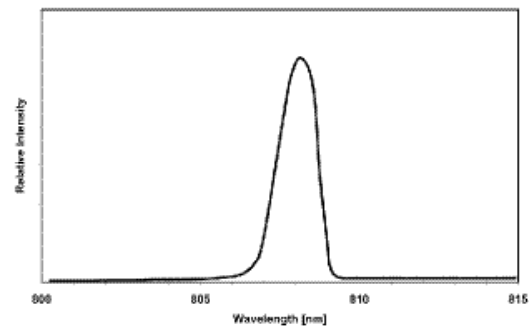
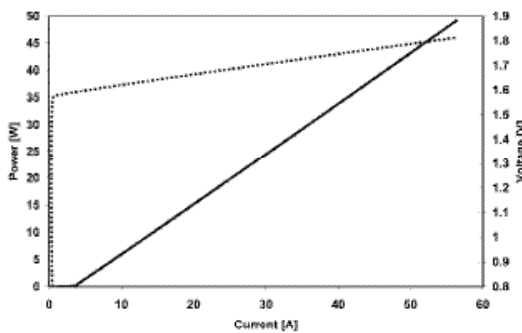
> ABSOLUTE MAXIMUM RATINGS

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

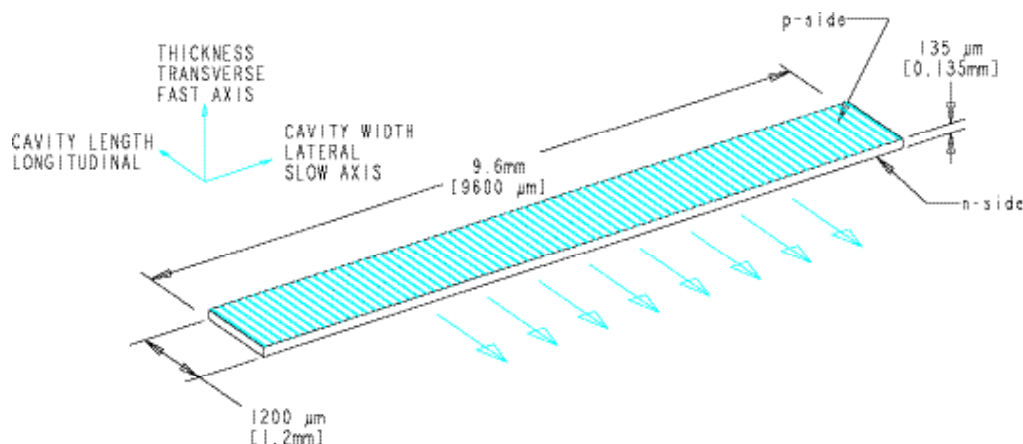
> SOLDERING CHARACTERISTICS

Parameter	Conditions
Metalization	1000 Å Au over Pt barrier

> OPTICAL CHARACTERISTICS (TYPICAL)



> MECHANICAL CHARACTERISTICS



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Rev. B 04/10