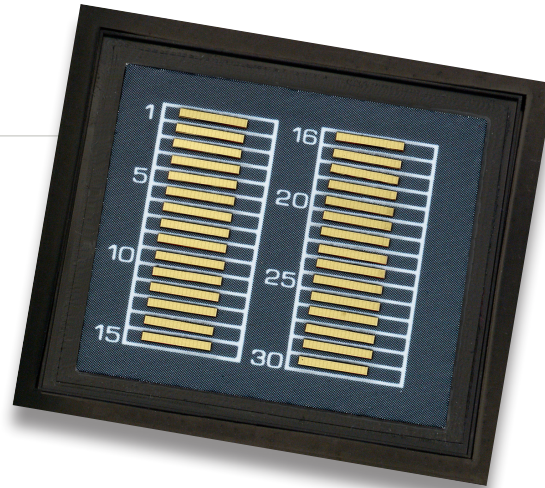


PART NUMBER: UMB404P050  
LASER DIODE BAR

#### FEATURES AND BENEFITS



- Excellent Solderability

- Available With Any Silver or Golden Bullet® Configuration

- Lot Tested

- Available Wavelengths (790-980nm)

#### OPTICAL CHARACTERISTICS

Parameter	Conditions	Min	Typ	Units
QCW Power Output	54A at 25°C Heat Sink	50	—	W
Operating Current	50W at 25°C Heat Sink	—	54	A
Threshold Current	25°C Heat Sink	—	12	A
Slope Efficiency	25°C Heat Sink	—	1.2	W/A
Efficiency	50W at 25°C Heat Sink	—	50	%
Number of Emitters	—	—	69	
Emitter Size	—	—	90x1	μm
Emitter Pitch	—	—	133	μm
Center Wavelength	50W at 25°C Heat Sink	—	808	nm
Wavelength Tolerance	50W at 25°C Heat Sink	—	+/-3	nm
Spectral Width	50W at 25°C Heat Sink	—	1.6	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	—	0.004	ohms
Operating Voltage	25°C Heat Sink, 50W	—	1.8	V

#### MECHANICAL CHARACTERISTICS

Parameter	Typical
Bar Width	9.6 mm
Bar Thickness	135 μm
Bar Cavity Length	625 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.



光技術をサポートする  
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50W QCW

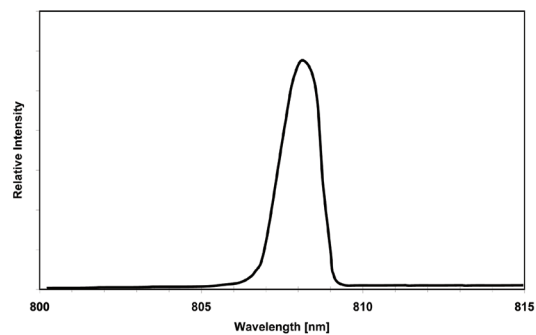
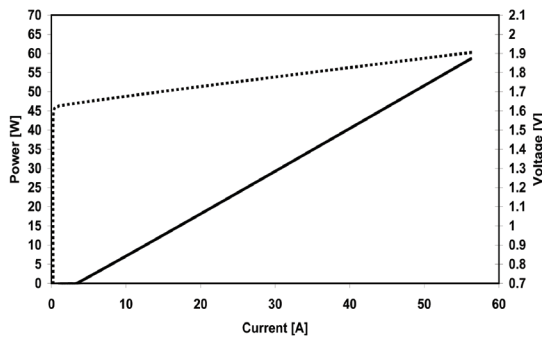
> ABSOLUTE MAXIMUM RATINGS

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

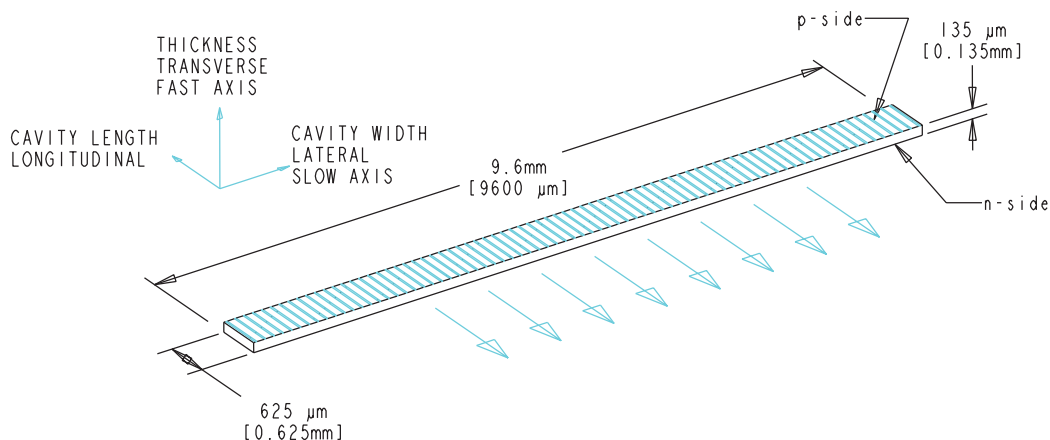
> SOLDERING CHARACTERISTICS

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 & lqd, 790-1560nm  
CLASS IV

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**⚠ WARNING ⚠**

ELECTROSTATIC DISCHARGE SENSITIVE DEVICE  
REQUIRING SPECIAL HANDLING

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