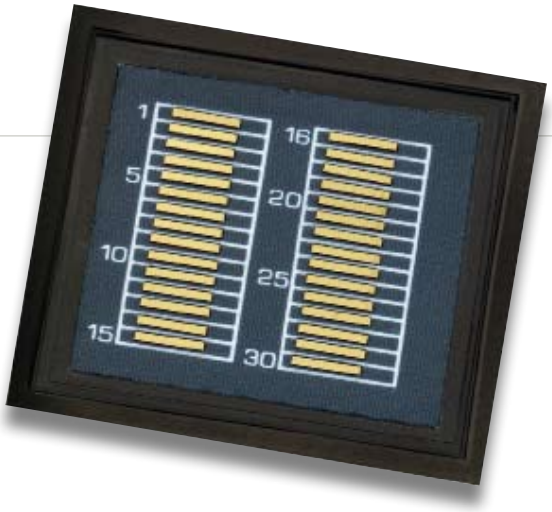
100W QCW

NORTHROP GRUMMAN



PART NUMBER: UMB700P100

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
QCW Power Output	95A at 25˚C Heat Sink	100	W
Operating Current	100W at 25˚C Heat Sink	95	A
Threshold Current	25˚C Heat Sink	15	A
Slope Efficiency	25˚C Heat Sink	1.25	W/A
Efficiency	100W at 25˚C Heat Sink	58	%
Number of Emitters	—	52	
Emitter Size	—	150x1	µm
Emitter Pitch	—	180	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	2.0	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, 100W	1.8	V

MECHANICAL CHARACTERISTICS

Parameter	Typical
Bar Width	9.6 mm
Bar Thickness	135 µm
Bar Cavity Length	1000 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 QCW

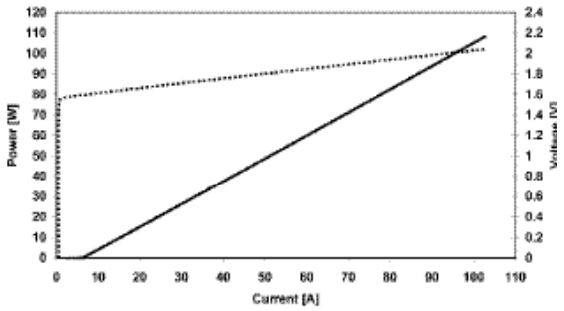
ABSOLUTE MAXIMUM RATINGS

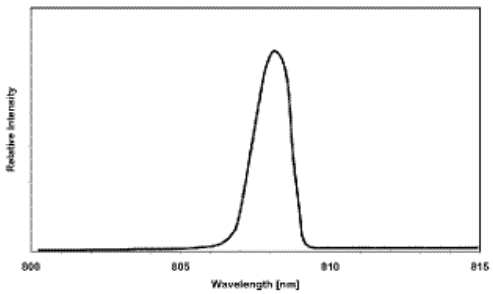
Parameter	Conditions
Reverse Current	0 A
Reverse Voltage	0 V
Operating Temperature Range	-40˚C to 70˚C
Storage Temperature Range	-40˚C to 85˚C

SOLDERING CHARACTERISTICS

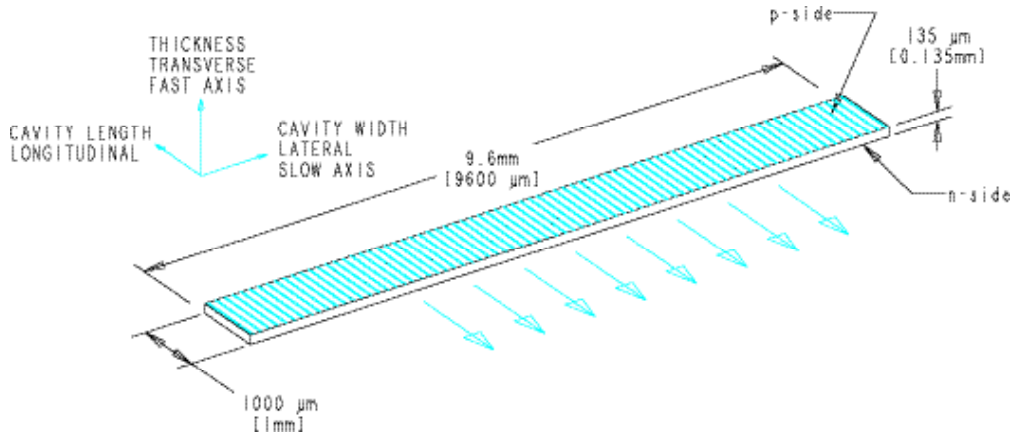
Parameter	Conditions
Metalization	1000 Å Au over Pt barrier

OPTICAL CHARACTERISTICS (TYPICAL)





MECHANICAL CHARACTERISTICS



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