### LASER DIODE ARRAY

# **5200W QCW**

## NORTHROP GRUMMAN

**G** PACKAGE



**FEATURES AND BENEFITS** 

- Ideal For Long Pulse And/Or High Duty Cycle Applications

- Standard Bar Pitch Options Include 400 µm, 800 µm, & 1200 µm

- Available Wavelengths: 790-1550nm

- Multi-wavelength Configurations Available

- G Package Is Available With Up To 26 Bars For A Maximum Output Power Of Up To 5.2 kW

#### **OPTICAL CHARACTERISTICS**

Parameter	Conditions	Typical	Units
QCW Power Output	175A at 25°C Heat Sink	5200	W
Operating Current	5200W at 25°C Heat Sink	175	А
Threshold Current	25°C Heat Sink	15	А
Slope Efficiency	25°C Heat Sink	32.5	W/A
Electrical-Optical Efficiency	5200W at 25°C Heat Sink	57	%
Center Wavelength	5200W at 25°C Heat Sink	808	nm
Wavelength Tolerance	5200W at 25°C Heat Sink	+/-3	nm
Spectral Width	5200W at 25°C Heat Sink	2.5	nm
Wavelength Shift	—	0.25	nm/°C
Beam Divergence FWHM	_	38x7	X°
Beam Divergence FWHM (Lensed)	_	1x7	x°

#### **ELECTRICAL CHARACTERISTICS**

Parameter	Conditions	Typical	Units
Series Resistance	25°C Heat Sink	0.052	Ω
Operating Voltage	25°C Heat Sink, 5200W	52.0	V

#### **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

#### 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.

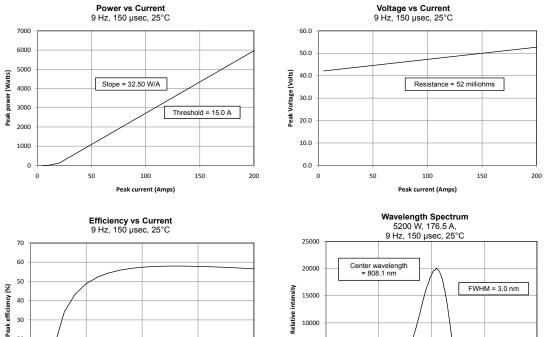
(3) Fast axis and slow axis lensing options are available for most NG-CEO heat exchanger designs

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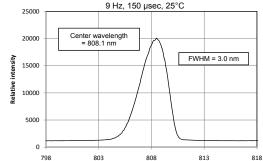
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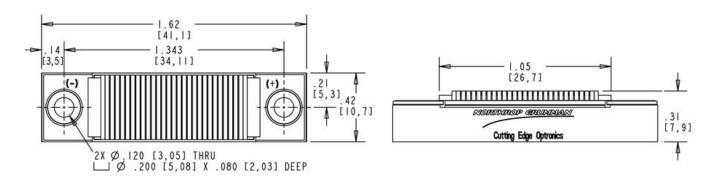
#### **OPTICAL CHARACTERISTICS (SAMPLE)**







### **MECHANICAL CHARACTERISTICS**



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