

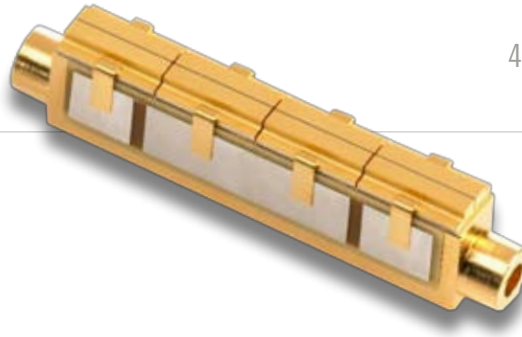
# DERRINGER PACKAGE

LASER DIODE ARRAY

80W CW

**NORTHROP GRUMMAN**

PART NUMBER: ARR121C080  
4-BAR STRETCH DERRINGER PACKAGE



## FEATURES AND BENEFITS

- Assembled With Hard Solder & Expansion Matched Materials
- Small, Compact Design
- Water Cooled
- Ideal For Side Pumping Or Direct Diode Applications
- Available Wavelengths: 790-1550nm
- Multi-wavelength Configurations Available

## OPTICAL CHARACTERISTICS

Parameter	Conditions	Typical	Units
CW Power Output	25A at 25°C Heat Sink	80	W
Operating Current	80W at 25°C Heat Sink	25	A
Threshold Current	25°C Heat Sink	8	A
Slope Efficiency	25°C Heat Sink	4.60	W/A
Electrical-Optical Efficiency	80W at 25°C Heat Sink	47	%
Center Wavelength	80W at 25°C Heat Sink	808	nm
Wavelength Tolerance	80W at 25°C Heat Sink	+/-3	nm
Spectral Width	80W at 25°C Heat Sink	1.8	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	0.016	$\Omega$
Operating Voltage	25°C Heat Sink, 80W	6.8	V

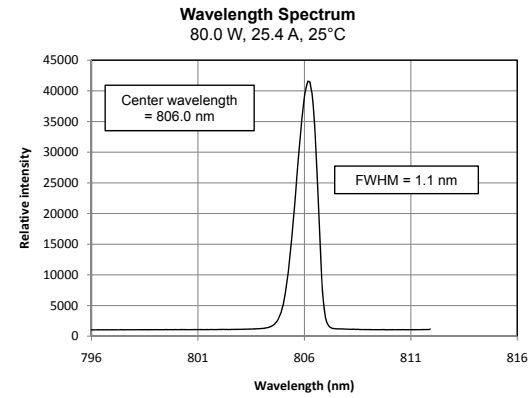
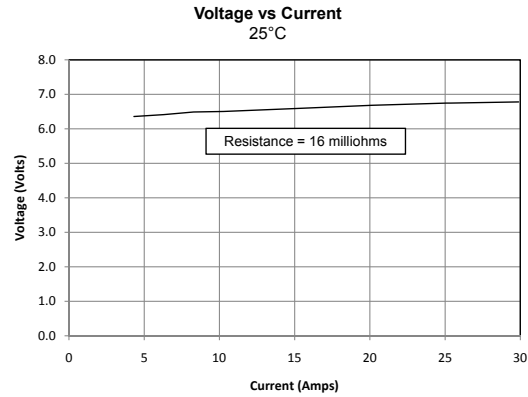
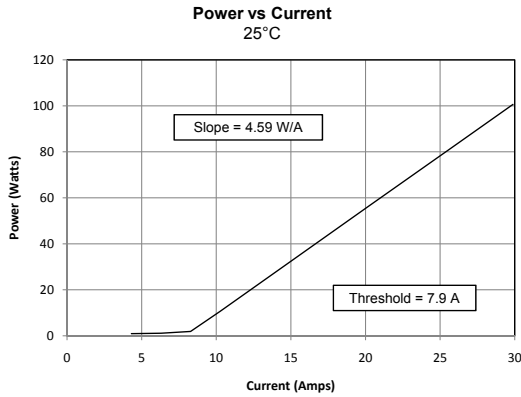
## ABSOLUTE MAXIMUM RATINGS

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

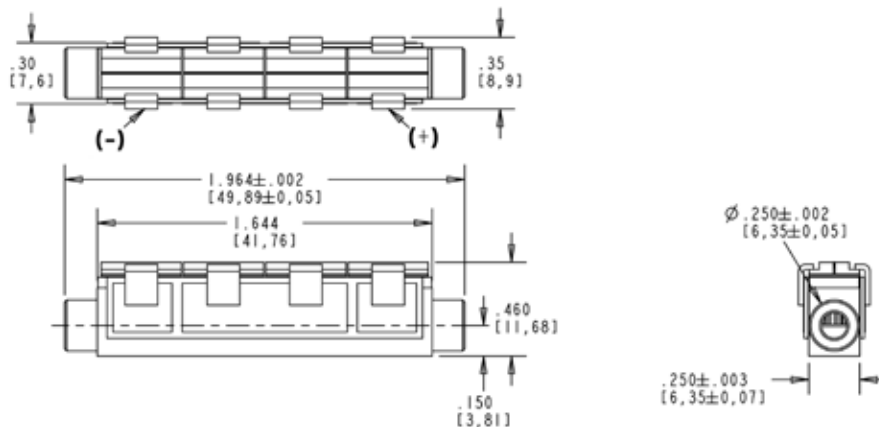
## NOTES

- (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.

### OPTICAL CHARACTERISTICS (SAMPLE)



### MECHANICAL CHARACTERISTICS



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DANGER

INVISIBLE LASER  
RADIATION

AVOID EYE OR SKIN EXPOSURE TO DIRECT  
OR SCATTERED RADIATION.

\*  
Diode laser  
5W & up, 780-1560nm  
CLASS IV

WARNING

ELECTROSTATIC DISCHARGE  
SENSITIVE DEVICE  
REQUIRING SPECIAL HANDLING

REV. A 10/09 REV. 0011-1000 (Rev. 0001)