

DERRINGER PACKAGE

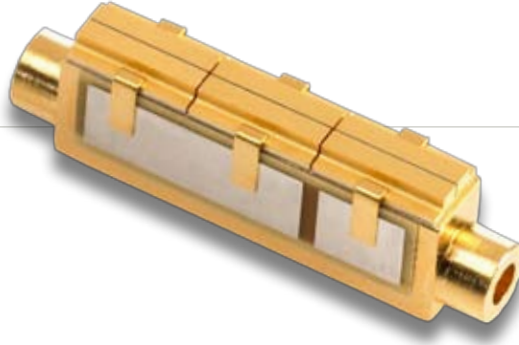
LASER DIODE ARRAY

900W QCW

NORTHROP GRUMMAN

PART NUMBER: ARR01P900
9-BAR DERRINGER PACKAGE

FEATURES AND BENEFITS



- Assembled With Hard Solder & Expansion Matched Materials
- Ideal For Long Pulse And/Or High Duty Cycle Applications
- Multi-wavelength Configurations Available From 790-1550nm
- Standard Bar Pitch Options Include 400 μm , 800 μm , and 1200 μm
- Small, Compact Water Cooled Design Is Ideal For Side Pumping Or Direct Diode Applications
- Derringer Package Available With Up To 24 Bars And A Maximum Output Power Of 4.8 kW

OPTICAL CHARACTERISTICS

Parameter	Conditions	Typical	Units
QCW Power Output	95A at 25°C Heat Sink	900	W
Operating Current	900W at 25°C Heat Sink	95	A
Threshold Current	25°C Heat Sink	15	A
Slope Efficiency	25°C Heat Sink	11.3	W/A
Electrical-Optical Efficiency	900W at 25°C Heat Sink	58	%
Center Wavelength	900W at 25°C Heat Sink	808	nm
Wavelength Tolerance	900W at 25°C Heat Sink	+/-3	nm
Spectral Width	900W at 25°C Heat Sink	2.0	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	0.018	Ω
Operating Voltage	25°C Heat Sink, 900W	16.2	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

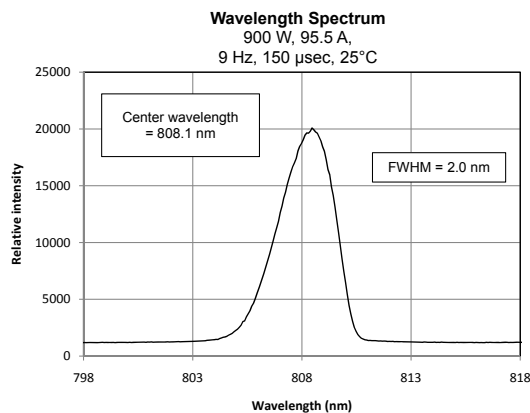
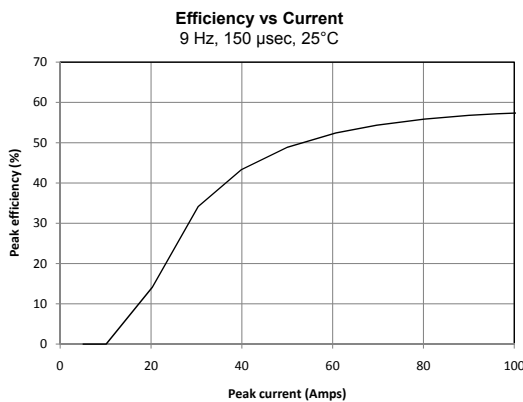
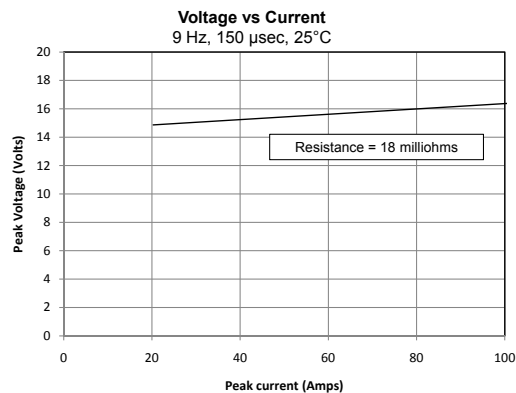
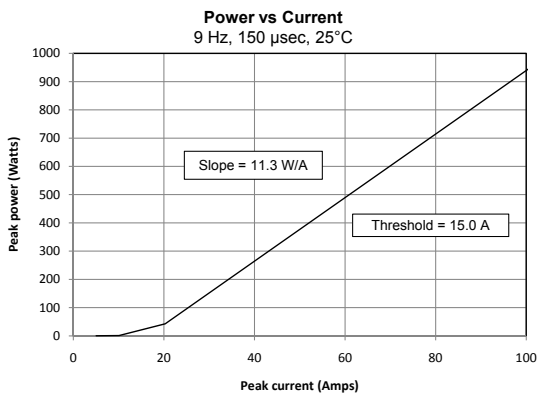
NOTES

- (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.

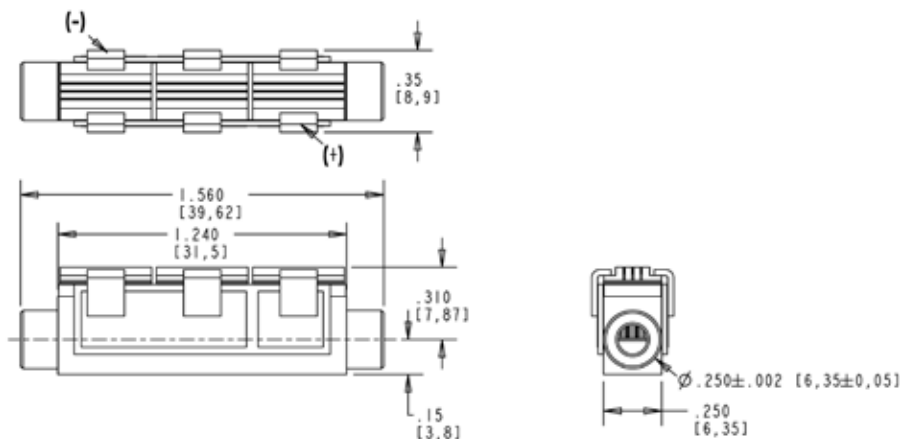
900W QCW

NORTHROP GRUMMAN

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 900W01-1000 Rev0000