

300W QCW

NORTHROP GRUMMAN

PART NUMBER: ARR189P300
3-BAR A PACKAGE

FEATURES AND BENEFITS



- Assembled With Hard Solder & Expansion Matched Materials
- 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
- A Package Also Available With Up To 8 Bars For A Maximum Output Power Of 1.6 kW

OPTICAL CHARACTERISTICS

Parameter	Conditions	Typical	Units
QCW Power Output	95A at 25°C Heat Sink	300	W
Operating Current	300W at 25°C Heat Sink	95	A
Threshold Current	25°C Heat Sink	15	A
Slope Efficiency	25°C Heat Sink	3.75	W/A
Electrical-Optical Efficiency	300W at 25°C Heat Sink	58	%
Center Wavelength	300W at 25°C Heat Sink	808	nm
Wavelength Tolerance	300W at 25°C Heat Sink	+/-3	nm
Spectral Width	300W 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	0.006	Ω
Operating Voltage	25°C Heat Sink, 300W	5.4	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

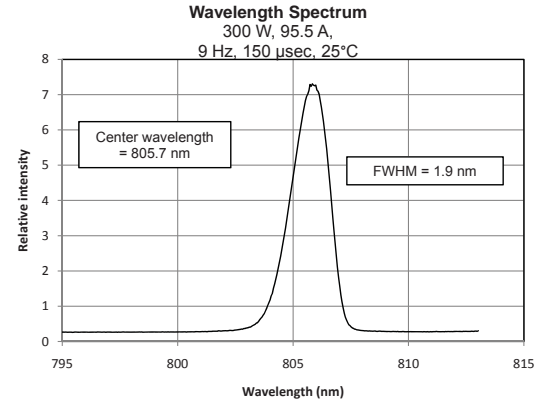
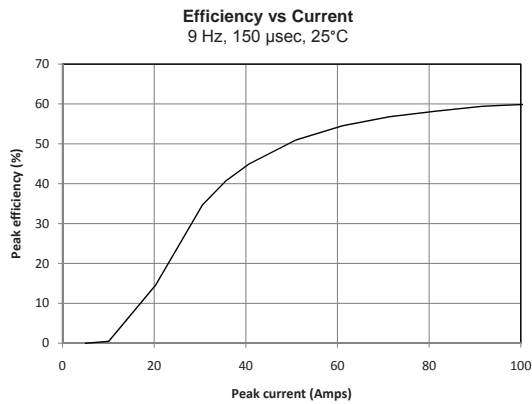
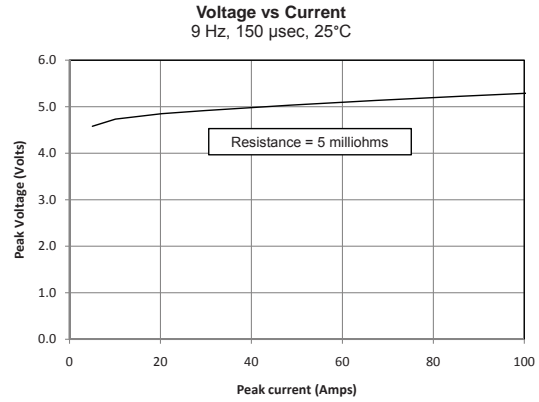
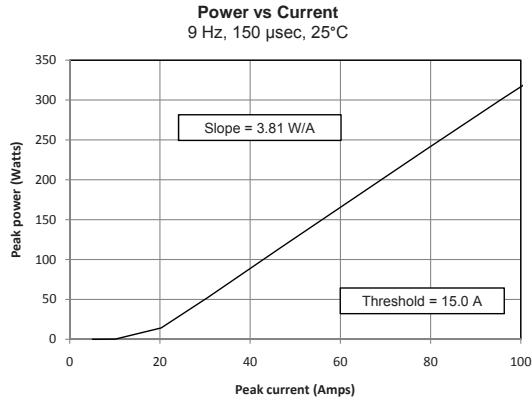
NOTES

- (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.

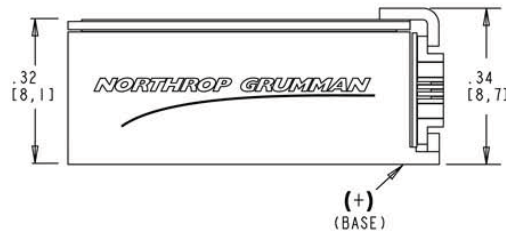
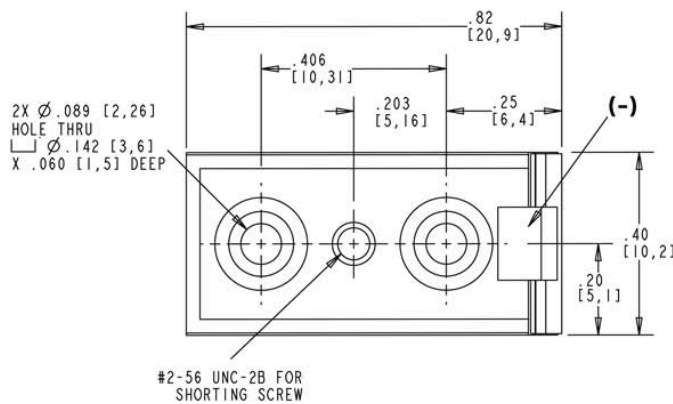
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NORTHROP GRUMMAN

> **OPTICAL CHARACTERISTICS (SAMPLE)**



> **MECHANICAL CHARACTERISTICS**



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WARNING
DANGER
INVISIBLE LASER RADIATION
AVOID EYE OR SKIN EXPOSURE TO DIRECT OR SCATTERED RADIATION
Diode laser
5W & up, 790-1560nm
CLASS IV

WARNING
ELECTROSTATIC DISCHARGE SENSITIVE DEVICE
REQUIRING SPECIAL HANDLING

Rev. A 10/08