



PART NUMBER: ARR189P1600
8-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 Available With Up To 8 Bars For A Maximum Output Power Of 1.6 kW

OPTICAL CHARACTERISTICS

Parameter	Conditions	Typical	Units
QCW Power Output	175A at 25°C Heat Sink	1600	W
Operating Current	1600W at 25°C Heat Sink	175	A
Threshold Current	25°C Heat Sink	15	A
Slope Efficiency	25°C Heat Sink	10.0	W/A
Electrical-Optical Efficiency	1600W at 25°C Heat Sink	57	%
Center Wavelength	1600W at 25°C Heat Sink	808	nm
Wavelength Tolerance	1600W at 25°C Heat Sink	+/-3	nm
Spectral Width	1600W at 25°C Heat Sink	3.0	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	0.016	Ω
Operating Voltage	25°C Heat Sink, 1600W	16.0	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

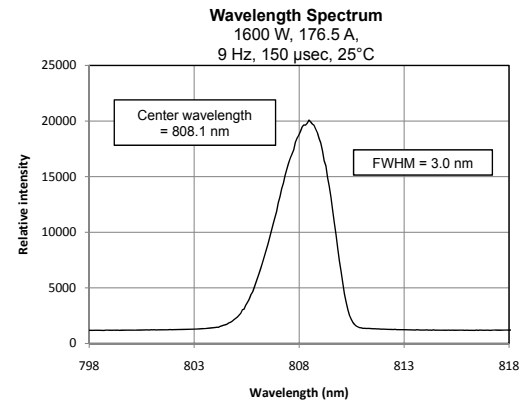
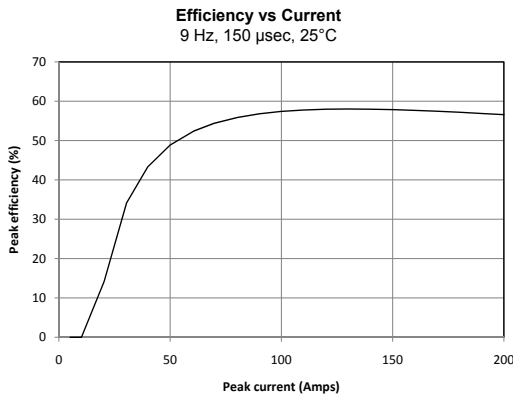
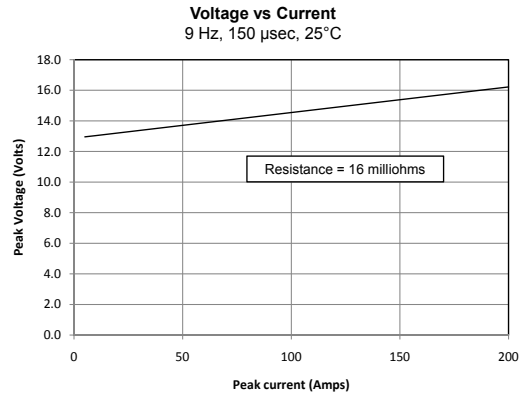
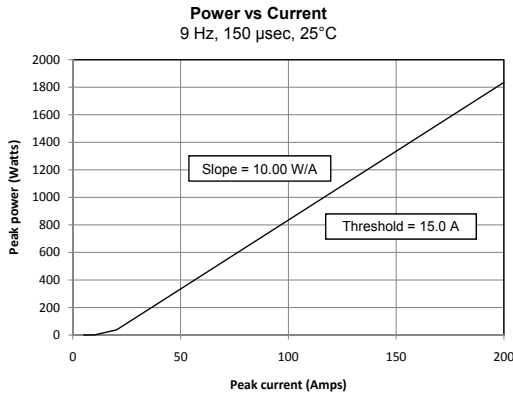
NOTES

- (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.

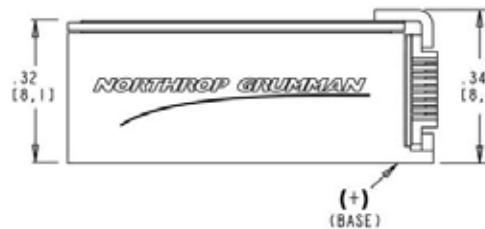
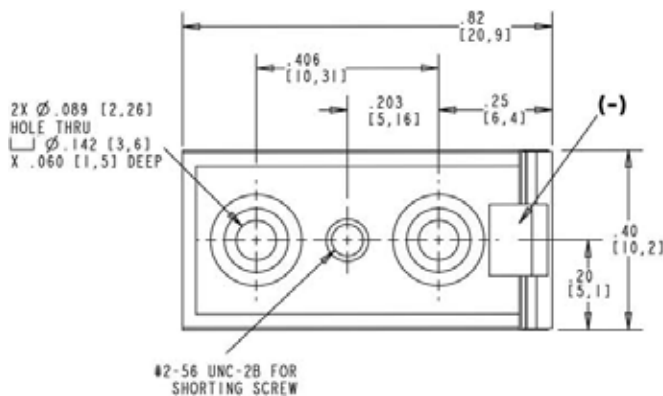
1600W QCW

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 HW 9001-1000 Rev0000