



PART NUMBER: ARR187P500  
5-BAR Cs 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  $\mu\text{m}$ , 800  $\mu\text{m}$ , & 1200  $\mu\text{m}$
- Available Wavelengths: 790-1550nm
- Multi-wavelength Configurations Available
- Cs 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	500	W
Operating Current	500W at 25°C Heat Sink	95	A
Threshold Current	25°C Heat Sink	15	A
Slope Efficiency	25°C Heat Sink	6.25	W/A
Electrical-Optical Efficiency	500W at 25°C Heat Sink	58	%
Center Wavelength	500W at 25°C Heat Sink	808	nm
Wavelength Tolerance	500W at 25°C Heat Sink	+/-3	nm
Spectral Width	500W 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	0.010	$\Omega$
Operating Voltage	25°C Heat Sink, 500W	9.0	V

#### ABSOLUTE MAXIMUM RATINGS

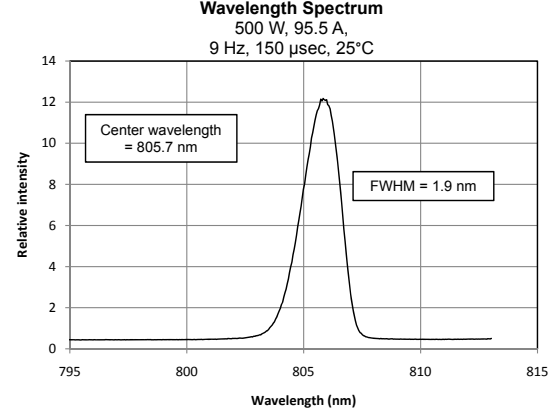
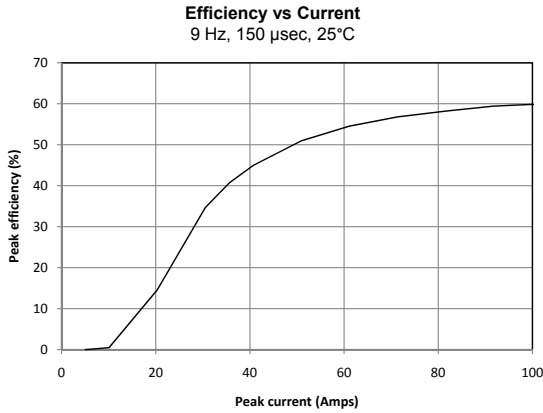
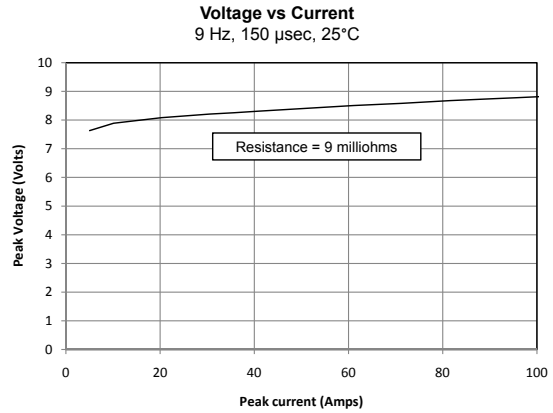
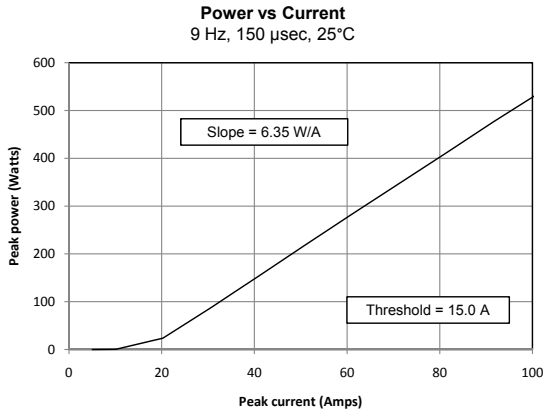
Parameter	Conditions
Reverse Current	0 A
Reverse Voltage	0 V
Operating Temperature Range	-40°C to 70°C
Storage Temperature Range	-40°C to 85°C

#### NOTES

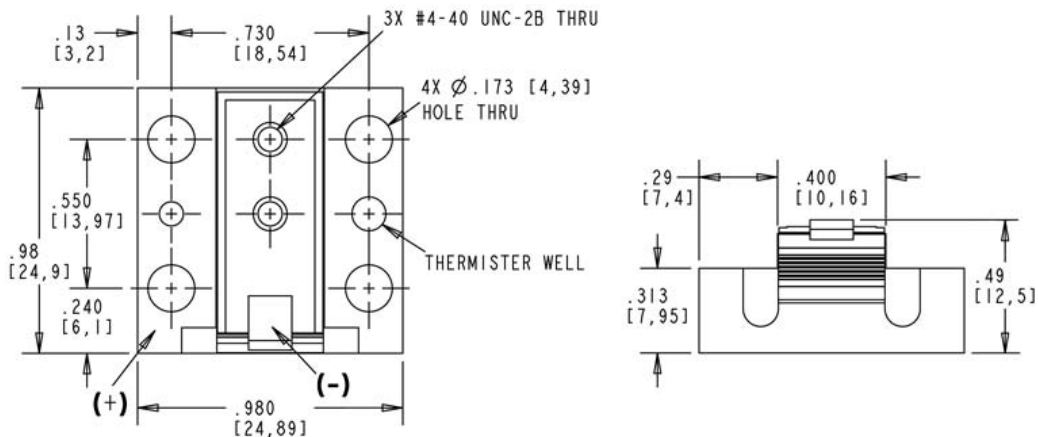
- (1) These specifications apply for operation at 808nm. Other wavelengths available upon request.
- (2) A dry nitrogen environment should be provided by the user when storing and operating at temperatures below ambient dew point.
- (3) Fast axis and slow axis lensing options are available for most NG-CEO heat exchanger designs.

500W QCW

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, 780-1560nm  
 CLASS IV  
**WARNING**  
 ELECTROSTATIC DISCHARGE SENSITIVE DEVICE  
 REQUIRING SPECIAL HANDLING