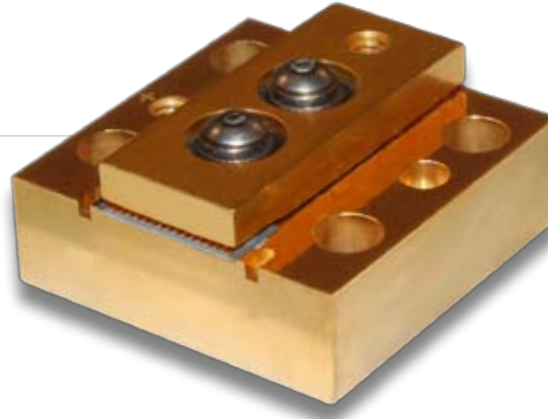


PART NUMBER: ARR97C040 - 1
DIRECTLY BONDED Cs PACKAGE



- Industry Standard
- Conductively Cooled
- Low Smile Package Design
- Diamond-Turned Heat Exchanger
- Available Wavelengths: 790-1550nm
- Data Below Based On 50-Emitter Bars

FEATURES AND BENEFITS

OPTICAL CHARACTERISTICS

| Parameter | Conditions | Typical | Units |
|-------------------------------|-----------------------|---------|-------|
| CW Power Output | 47A at 25°C Heat Sink | 40 | W |
| Operating Current | 40W at 25°C Heat Sink | 47 | A |
| Threshold Current | 25°C Heat Sink | 12 | A |
| Slope Efficiency | 25°C Heat Sink | 1.15 | W/A |
| Electrical-Optical Efficiency | 40W at 25°C Heat Sink | 51 | % |
| Center Wavelength | 40W at 25°C Heat Sink | 808 | nm |
| Wavelength Tolerance | 40W at 25°C Heat Sink | +/-3 | nm |
| Spectral Width | 40W at 25°C Heat Sink | 1.6 | 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 | 0.002 | Ω |
| Operating Voltage | 25°C Heat Sink, 40W | 1.7 | V |

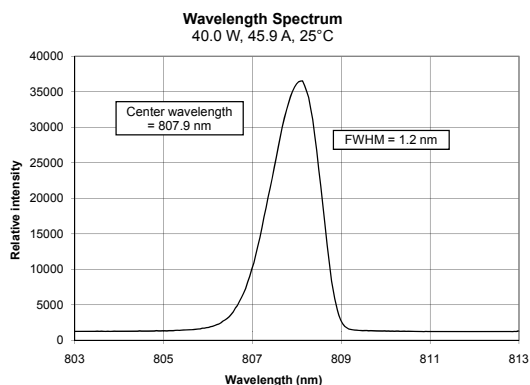
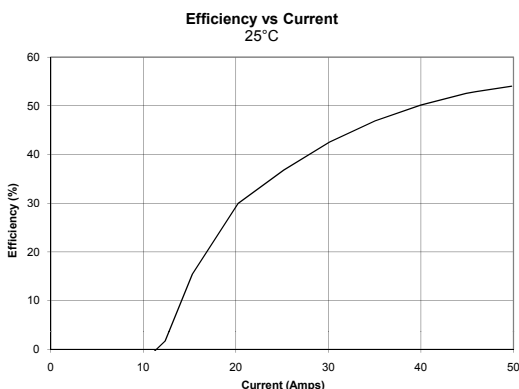
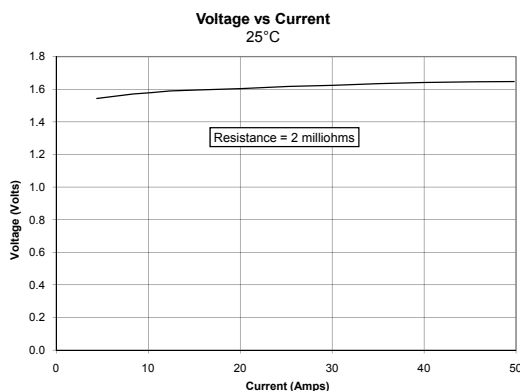
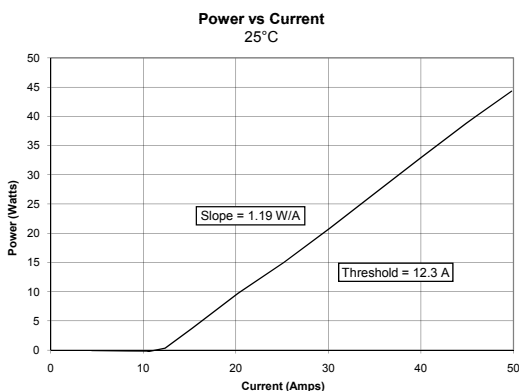
ABSOLUTE MAXIMUM RATINGS

| 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 |

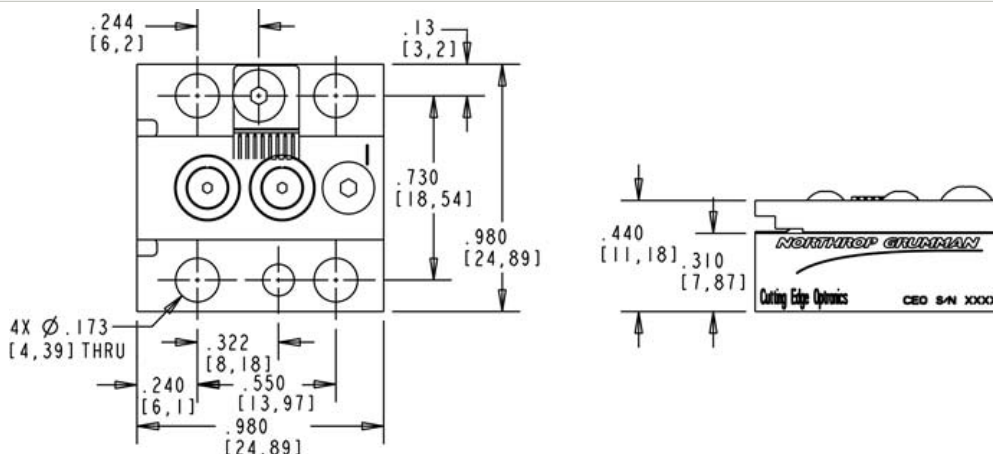
NOTES

- (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
 SW & up, 780-1560nm
 CLASS IV

WARNING
 ELECTROSTATIC DISCHARGE SENSITIVE DEVICE
 REQUIRING SPECIAL HANDLING

REV: A 10/09