CS PACKAGE

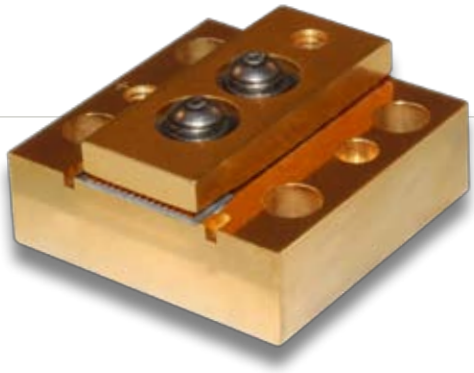
LASER DIODE ARRAY

20W CW

NORTHROP GRUMMAN

PART NUMBER: ARR97C020

DIRECTLY BONDED Cs PACKAGE



FEATURES AND BENEFITS

- Industry Standard
- Conductively Cooled
- Low Smile Package Design
- Diamond-Turned Heat Exchanger
- Available Wavelengths: 790-1550nm

OPTICAL CHARACTERISTICS

Parameter	Conditions	Typical	Units
CW Power Output	25A at 25˚C Heat Sink	20	W
Operating Current	20W at 25˚C Heat Sink	25	A
Threshold Current	25˚C Heat Sink	8	A
Slope Efficiency	25°C Heat Sink	1.15	W/A
Electrical-Optical Efficiency	20W at 25˚C Heat Sink	47	%
Center Wavelength	20W at 25˚C Heat Sink	808	nm
Wavelength Tolerance	20W at 25˚C Heat Sink	+/-3	nm
Spectral Width	20W at 25˚C Heat Sink	1.8	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	0.004	Ω
Operating Voltage	25˚C Heat Sink, 20W	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.

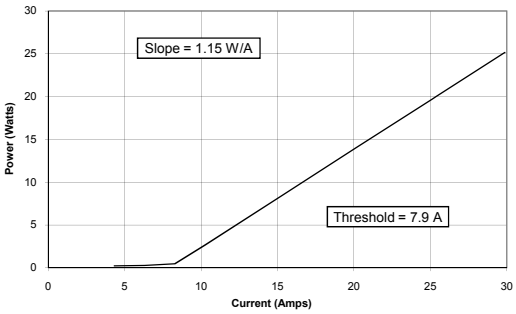
(3) Fast axis and slow axis lensing options are available for most NG-CEO heat exchanger designs.

20W CW

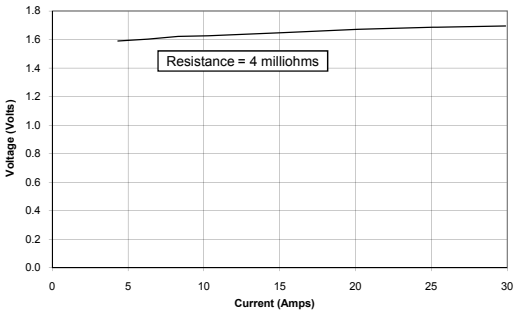
NORTHROP GRUMMAN

OPTICAL CHARACTERISTICS (SAMPLE)

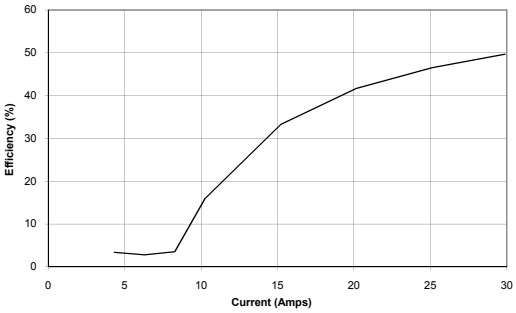
Power vs Current
25°C



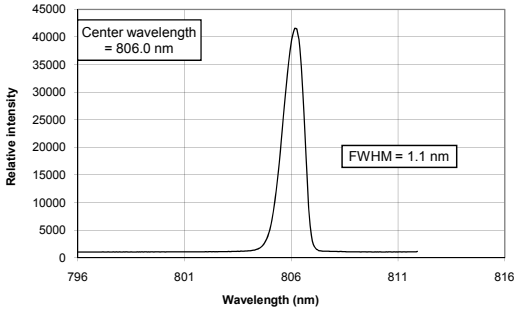
Voltage vs Current
25°C



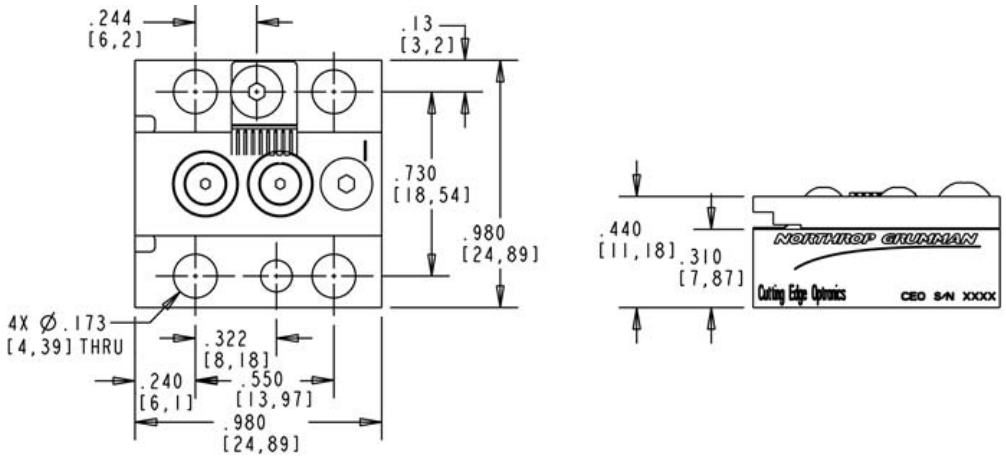
Efficiency vs Current
25°C



Wavelength Spectrum
20.0 W, 25.4 A, 25°C



MECHANICAL CHARACTERISTICS

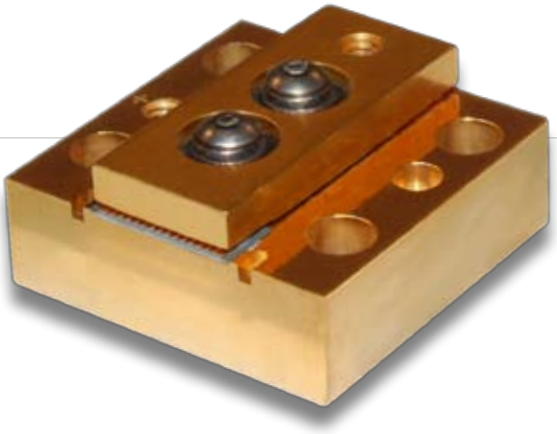


CS PACKAGE

LASER DIODE ARRAY

40W CW

NORTHROP GRUMMAN



PART NUMBER: ARR97C040 - 1

DIRECTLY BONDED Cs PACKAGE

FEATURES AND BENEFITS

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

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.

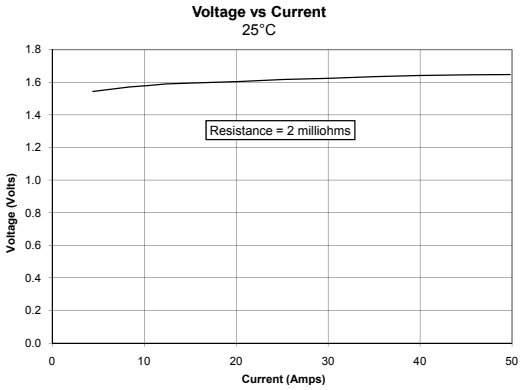
(2) A dry nitrogen environment should be provided by the user when storing and operating at temperatures below ambient dew point.

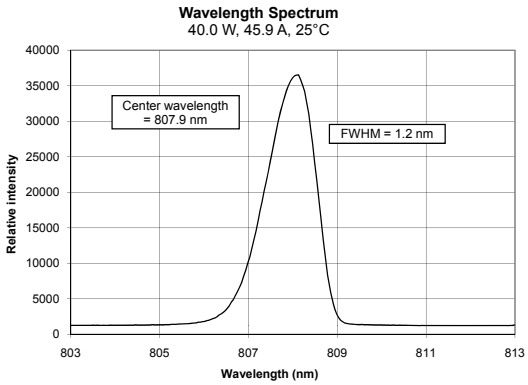
(3) Fast axis and slow axis lensing options are available for most NG-CEO heat exchanger designs.

40W CW

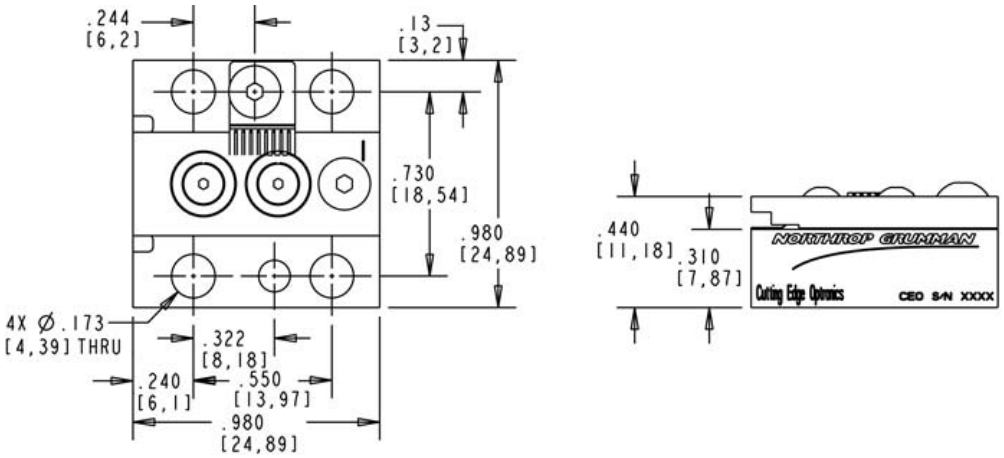
NORTHROP GRUMMAN

OPTICAL CHARACTERISTICS (SAMPLE)





MECHANICAL CHARACTERISTICS

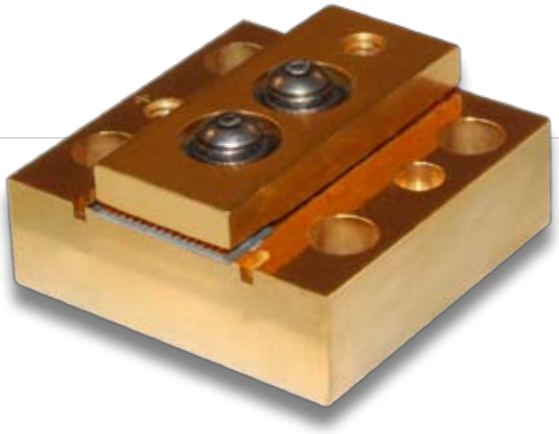


CS PACKAGE

LASER DIODE ARRAY

40W CW

NORTHROP GRUMMAN



PART NUMBER: ARR97C040 - 2

DIRECTLY BONDED Cs PACKAGE

FEATURES AND BENEFITS

- Industry Standard
- Conductively Cooled
- Low Smile Package Design
- Diamond-Turned Heat Exchanger
- Available Wavelengths: 790-1550nm
- Data Below Based On 19-Emitter Bars

OPTICAL CHARACTERISTICS

Parameter	Conditions	Typical	Units
CW Power Output	43A at 25˚C Heat Sink	40	W
Operating Current	40W at 25˚C Heat Sink	43	A
Threshold Current	25˚C Heat Sink	7	A
Slope Efficiency	25°C Heat Sink	1.1	W/A
Electrical-Optical Efficiency	40W at 25˚C Heat Sink	49	%
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	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	0.006	Ω
Operating Voltage	25˚C Heat Sink, 40W	1.9	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

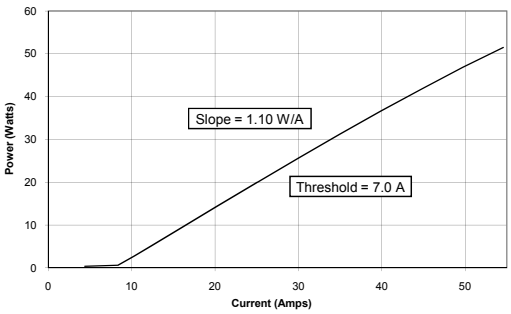
(1) These specifications apply for operation at 808nm. Other wavelengths available upon request.

(2) A dry nitrogen environment should be provided by the user when storing and operating at temperatures below ambient dew point.

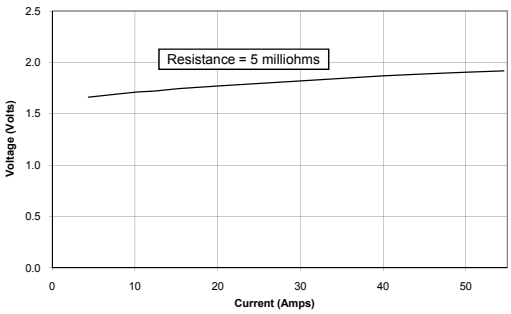
(3) Fast axis and slow axis lensing options are available for most NG-CEO heat exchanger designs.

OPTICAL CHARACTERISTICS (SAMPLE)

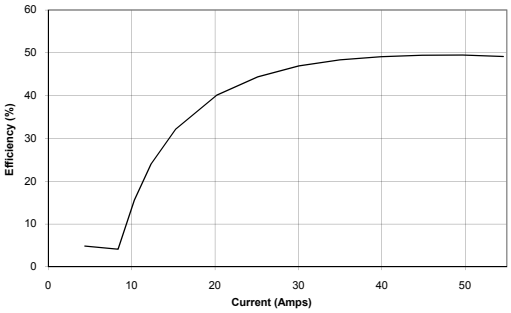
Power vs Current
25°C



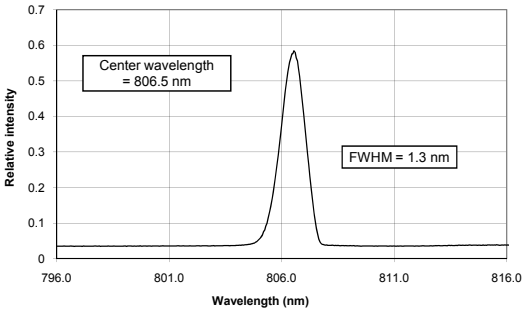
Voltage vs Current
25°C



Efficiency vs Current
25°C



Wavelength Spectrum
40 W, 43.4 A, 25°C



MECHANICAL CHARACTERISTICS