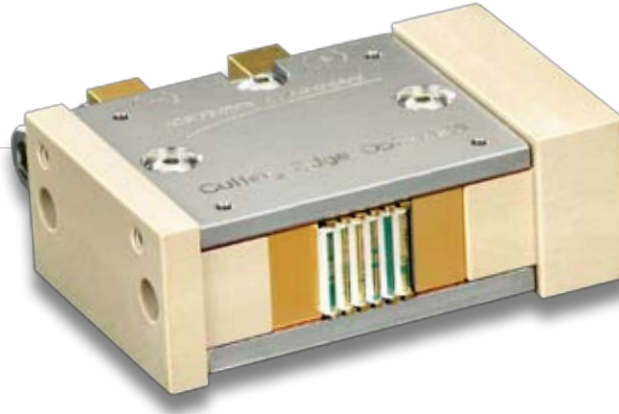


PART NUMBER: MCS051C600
6-BAR MCC PACKAGE

FEATURES AND BENEFITS



- Micro-Channel Cooled Arrays
- Highest Average Power Available
- Ideal For High Brightness Applications
- Available Wavelengths: 790-1550nm
- Multi-Wavelength Configurations Available
- Single & Multi-Dimensional MCC Stacks Are Available From 1 To 64 Bars Per Stack With Output Powers Up To 100W CW Per Bar
- MCC Arrays Can Be Lensed Upon Request, With A Typical FAC Of 0.25° (FWHM)

OPTICAL CHARACTERISTICS

Parameter	Conditions	Typical	Units
CW Power Output	101A at 25°C Heat Sink	600	W
Operating Current	600W at 25°C Heat Sink	101	A
Threshold Current	25°C Heat Sink	18	A
Slope Efficiency	25°C Heat Sink	7.20	W/A
Electrical-Optical Efficiency	600W at 25°C Heat Sink	57	%
Center Wavelength	600W at 25°C Heat Sink	808	nm
Wavelength Tolerance	600W at 25°C Heat Sink	+/-3	nm
Spectral Width	600W at 25°C Heat Sink	1.8	nm
Wavelength Shift	—	0.25	nm/°C
Beam Divergence FWHM	—	38 x 7	x°
Beam Divergence FWHM (Lensed)	—	0.25 x 7	x°

ELECTRICAL CHARACTERISTICS

Parameter	Conditions	Typical	Units
Series Resistance	25°C Heat Sink	0.009	Ω
Operating Voltage	25°C Heat Sink, 600W	10.8	V

ABSOLUTE MAXIMUM RATINGS

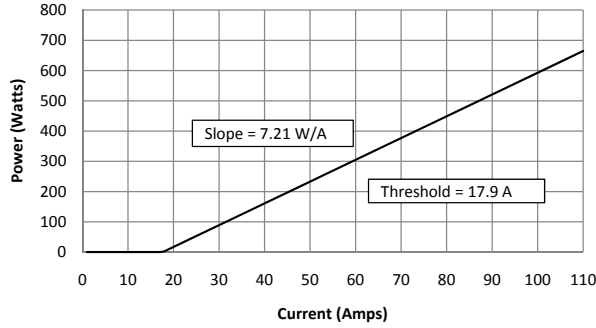
Parameter	Conditions
Reverse Current	0 A
Reverse Voltage	0 V
Operating Temperature Range	-40°C to 70°C
Storage Temperature Range	-40°C to 85°C

NOTES

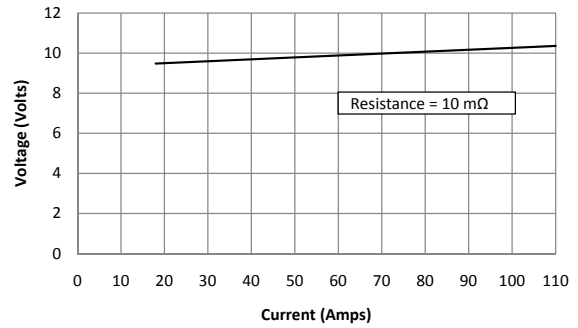
- (1) These specifications apply for operation at 808nm. Other wavelengths available upon request.
- (2) A dry nitrogen environment should be provided by the user when storing and operating at temperatures below ambient dew point.
- (3) Fast axis and slow axis lensing options are available for most NG-CEO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

OPTICAL CHARACTERISTICS (SAMPLE)

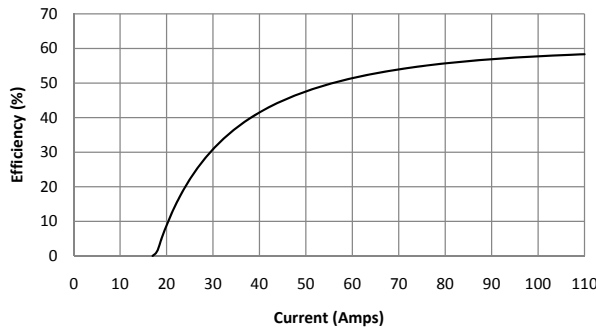
Power vs Current
25°C



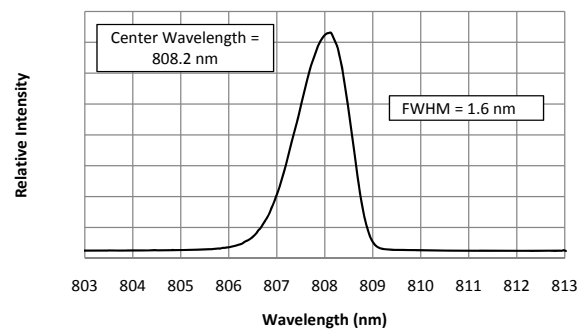
Voltage vs Current
25°C



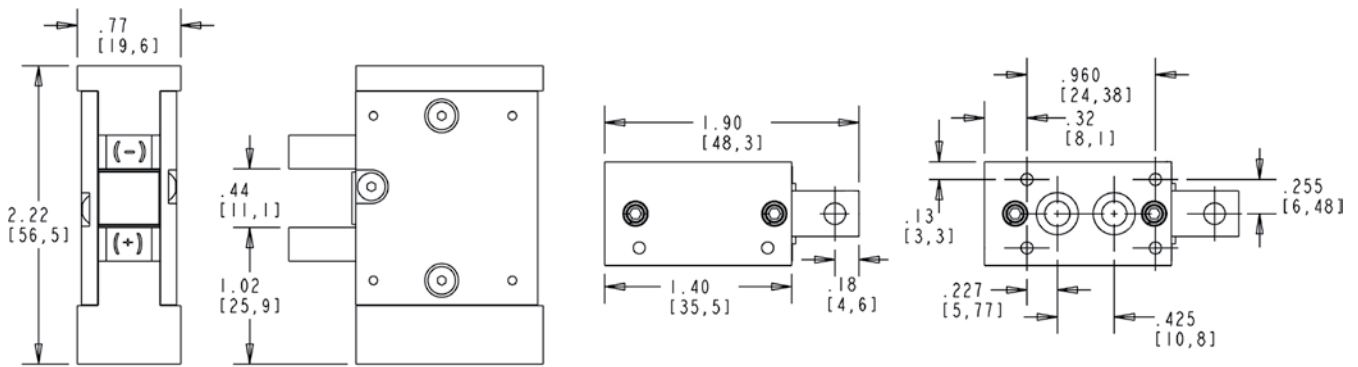
Efficiency vs Current
25°C



Wavelength Spectrum
600W, 101 A, 25°C



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. B 5/10