300W CW High Power Stacks
Part Number: MCS055C300

3-BARS

- High Power Stack
- Available With Up To 64 Bars Per Stack
- Available Wavelengths (790-1550nm)

OPTICAL CHARACTERISTICS

PARAMETER	CONDITIONS	MIN	TYP	MAX	UNITS
CW Power Output	Microchannel-cooled @ Iop, Top	300	---	---	W
Operating Current	Microchannel-cooled @ 300W, Top	---	110	---	A
Threshold Current	Microchannel-cooled @ Top	---	25	---	A
Slope Efficiency	Microchannel-cooled @ Top	---	1.2	---	W / A
Center Wavelength	Microchannel-cooled @ 300W, Top	790	808	980	nm
Wavelength Tolerance	Microchannel-cooled @ 300W, Top	---	± 3	---	nm
Spectral Width (FWHM)	Microchannel-cooled @ 300W, Top	---	3.0	---	nm
Wavelength Shift	wrt Temperature	0.23	0.25	0.27	nm / °C
Slow Axis Beam Divergence	FWHM	---	10	---	° x °
Fast Axis Beam Divergence	FWHM	---	40	---	° x °
Lensed Fast Axis Beam Divergence	FWHM	---	0.25	---	° x °
Polarization	---	---	TE	---	---

ELECTRICAL CHARACTERISTICS

PARAMETER	CONDITIONS	MIN	TYP	MAX	UNITS
Series Resistance	Microchannel-cooled @ 300W, Top	---	9	---	m ohms
Operating Voltage	Microchannel-cooled @ 300W, Top	---	5.4	6.3	V

COOLING REQUIREMENTS

PARAMETER	CONDITIONS	MIN	TYP	MAX	UNITS
Fluid Type	Deionized Water	---			---
pH Level	---	7.0	7.5	8.0	---
Resistivity	---	0.300	0.500	0.700	M ohms
Flow Rate	---	0.24	0.30	0.36	gpm
Inlet Pressure	---	40.0	45.0	80.0	psi
Particle Filter	---	---	---	5.0	µm

NOTES

(1) These specifications apply for operation at 808nm. Contact CEO for other wavelengths between 790 and 980nm.

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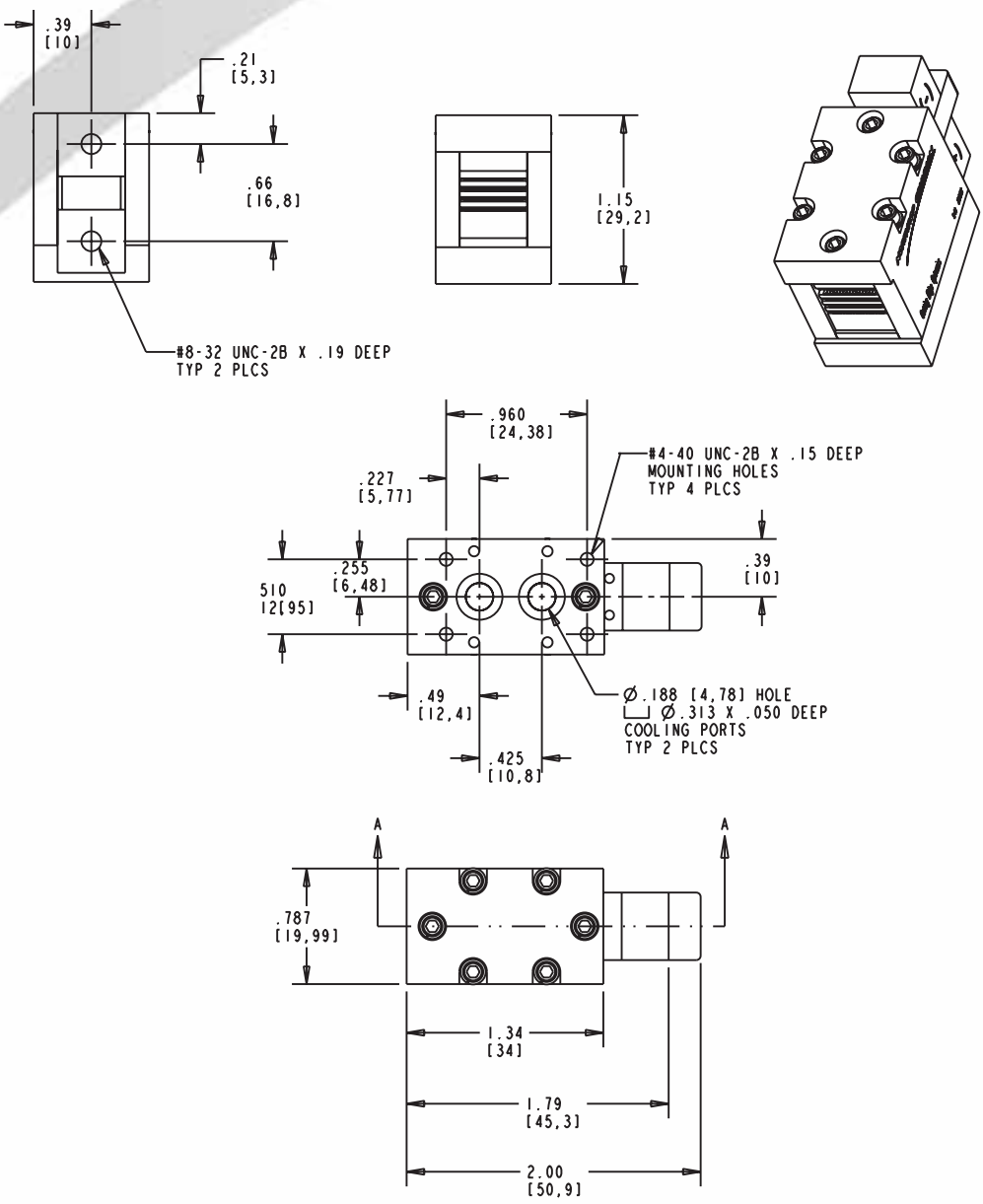
ABSOLUTE MAX RATINGS

PARAMETER	CONDITIONS	MIN	TYP	MAX	UNITS
Reverse Current	---	0	0	0	A
Reverse Voltage	---	0	0	0	V
Operating Temperature Range	Non-condensing Atmosphere	- 20	25	50	°C
Storage Temperature Range	Non-condensing Atmosphere	- 45	25	85	°C

NOTES

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

MECHANICAL CHARACTERISTICS



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