

150W 808nm VCSEL Array on Micro-Channel-Cooler

PCW-CS5-150-W0808-MC

- Vertical-Cavity Surface-Emitting Laser technology
- Very high reliability, can operate at high temperatures (up to 80°C)
- Wavelength stabilized & narrow spectral width (< 1 nm)
- Mounted on micro-channel-cooler

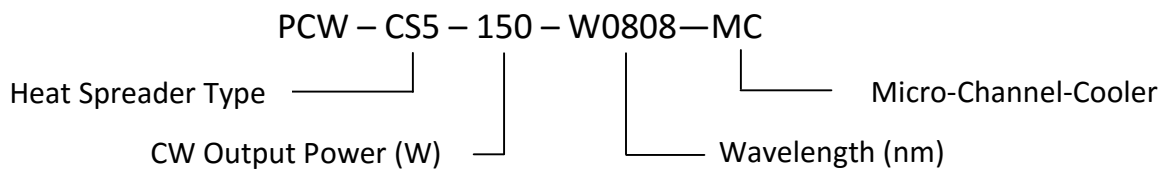
Optical & Electrical Characteristics

PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
CW Output power	I _{op} , 20 °C Heat-sink	145	150	--	W
Threshold current	20 °C Heat-sink	8	9	10	A
Operating current	P _{out} , 20 °C Heat-sink	--	80	90	A
Operating voltage	P _{out} , 20 °C Heat-sink	4.7	5	5.3	V
Differential resistance	P _{out} , 20 °C Heat-sink	--	24	26	mΩ
Slope efficiency	20 °C Heat-sink	1.8	2	--	W/A
Conversion efficiency	P _{out} , 20 °C Heat-sink	38	40	42	%
Center wavelength	P _{out} , 20 °C Heat-sink	800	808	816	nm
Spectral width (FWHM)	P _{out} , 10 °C Heat-sink	--	1	3	nm
Wavelength shift	20 °C Heat-sink	0.06	0.07	0.08	nm/°C
N.A. (4 sigma)	P _{out} , 20 °C Heat-sink	--	0.15	0.2	--
Emission area	--	--	4.7 x 4.7	--	mm ²

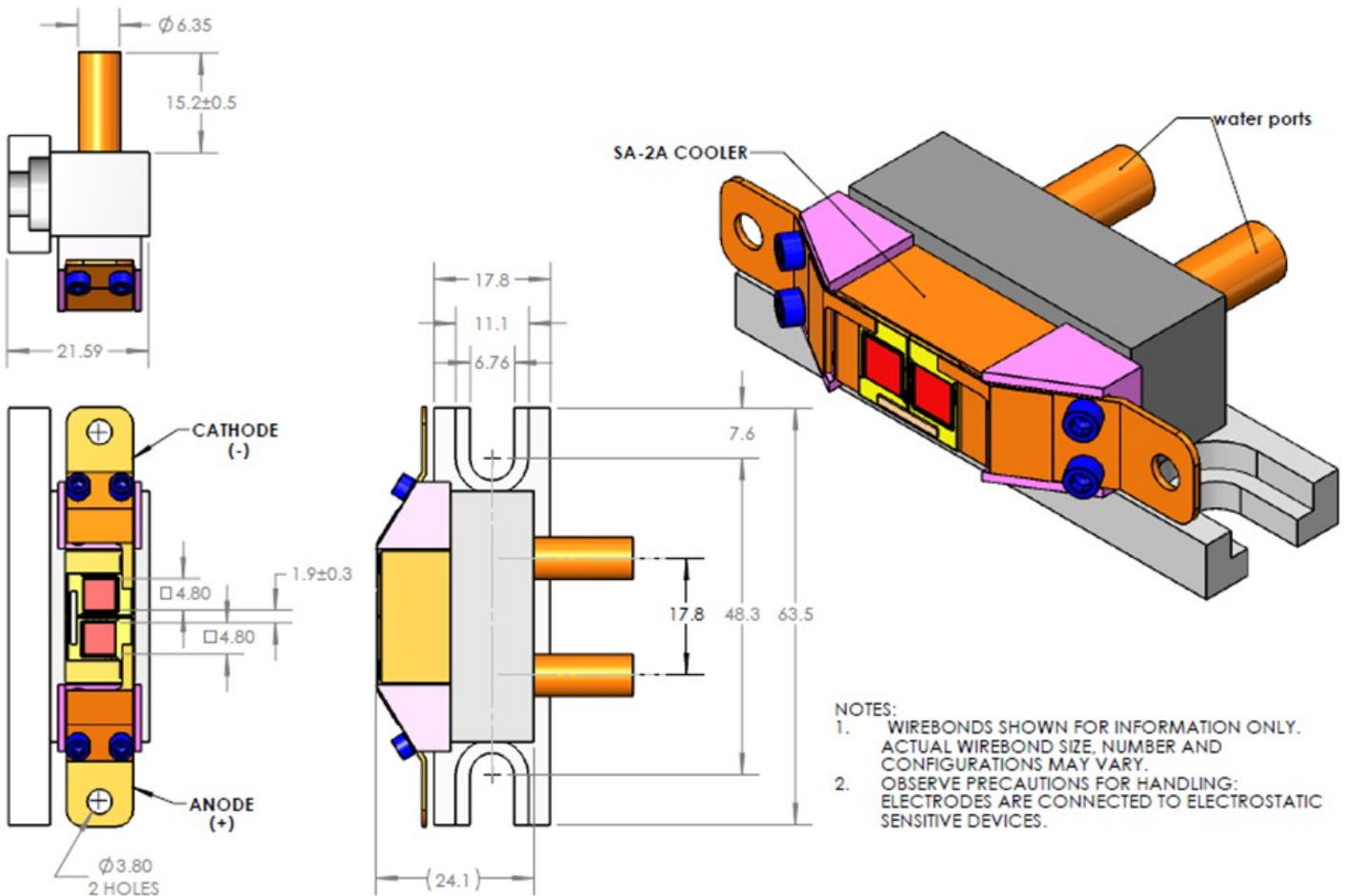
Maximum Absolute Ratings

PARAMETER	CONDITIONS
Forward current	200 A
Reverse current	25 μA
Operating temperature	0 to +80 °C
Storage temperature	-40 to +80 °C

Ordering information



Mechanical Characteristics



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Laser diode product components are intended for use in a user-devised end system. However, these products are capable of emitting Class IV radiation. Extreme care must be exercised during their operation. Only persons familiar with the appropriate safety precautions should operate a laser product. Directly viewing the laser beam or exposure to specular reflections must be avoided. Serious injury may result if any part of the body is exposed to the beam. The eye is extremely sensitive to the infrared radiation and therefore, proper eye-wear must be worn at all times. Use of optical instruments with these products may increase eye hazard. Always wear eye protection when operating.



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