

6W 808nm VCSEL Array Submodule

PCW-CS6-6-W0808

- Vertical-Cavity Surface-Emitting Laser technology
- Uniform and speckle free illumination
- Selectable beam divergence upon request
- Circular symmetric output beam for low cost lensing
- Operates at high temperature reliably
- Ideal for target designations

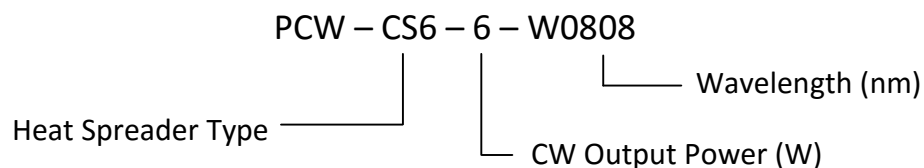
Optical & Electrical Characteristics

PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
CW Output power	I _{OP} , 20°C Heat-sink	6	8	--	W
Threshold current	20°C Heat-sink	--	2	3	A
Operating current	P _{OUT} , 20°C Heat-sink	--	8	10	A
Operating voltage	P _{OUT} , 20°C Heat-sink	--	2.1	2.5	V
Differential resistance	P _{OUT} , 20°C Heat-sink	--	80	100	mΩ
Slope efficiency	20°C Heat-sink	1	1.1	--	W/A
Conversion efficiency	P _{OUT} , 20°C Heat-sink	35	44	--	%
Center wavelength	P _{OUT} , 20°C Heat-sink	800	808	816	nm
Spectral width (FWHM)	P _{OUT} , 20°C Heat-sink	--	1	3	nm
Wavelength shift	20°C Heat-sink	--	--	0.07	nm/°C
Divergence (FW 1/e ²)	P _{OUT} , 20°C Heat-sink	17	19.5	23	°
Emission area	--	--	1.5 x 1.5	--	mm ²

Maximum Absolute Ratings

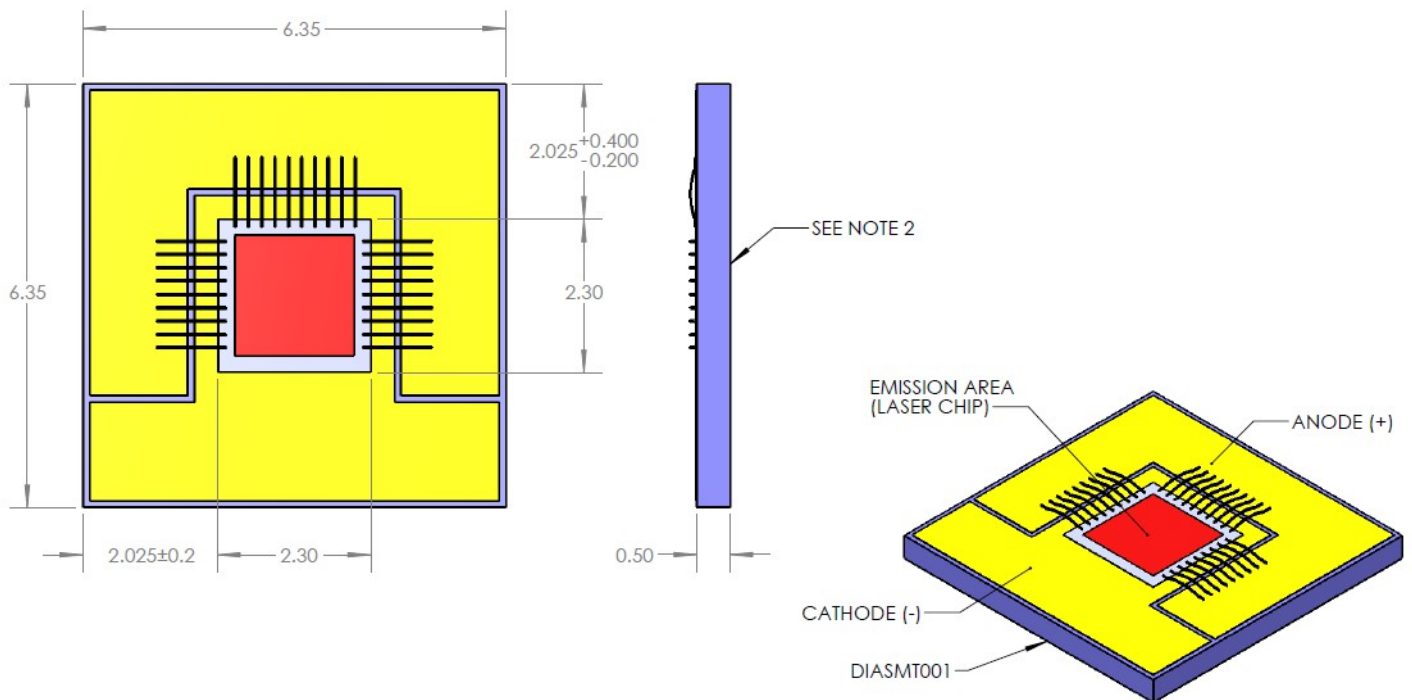
PARAMETER	CONDITIONS
Forward current	10 A
Reverse current	25 μA
Operating temperature	0 to +80 °C
Storage temperature	-40 to +80 °C

Ordering information



Mechanical Characteristics

PARAMETER	CONDITIONS
Package width	6.35 ± 0.1 mm
Package length	6.35 ± 0.1 mm
Package height	0.6 ± 0.1 mm
Light emitting area	1.5 x 1.5 mm ²
Max solder temperature	118 °C



NOTES:

1. ANODE AND CATHODE METALLIZATION: 12 μ m Au FOR WIREBONDING AND SOLDERING.
METALLIZATION PULLBACK: 0.10 ± 0.05 mm.
2. FULL BACKSIDE METALLIZATION: 2 μ m Au FOR SOLDERING.
3. WIREBONDS SHOWN FOR INFORMATION ONLY.
ACTUAL WIREBOND SIZE, NUMBER AND CONFIGURATION MAY VARY.

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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.



REV.B – 8/16