

30W 808nm VCSEL Array Submodule PQCW-CS6-30-W0808

- 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)
- Easily soldered to heat exchanger

Optical & Electrical Characteristics

PARAMETER	CONDITIONS*	MIN	TYP	MAX	UNIT
QCW Output power	33A, 20°C Heat-sink	30	33	--	W
Threshold current	20 ⁰ C Heat-sink	--	4	6	A
Operating current	P _{out} , 20°C Heat-sink	--	30	33	A
Operating voltage	P _{out} , 20°C Heat-sink	--	2.7	2.9	V
Differential resistance	P _{out} , 20°C Heat-sink	--	36	42	mΩ
Slope efficiency	20°C Heat-sink	1	1.1	--	W/A
Conversion efficiency	15W, 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	--	0.8	1	nm
Wavelength shift	20°C Heat-sink	--	--	0.07	nm/°C
N.A. (4 sigma)	P _{out} , 20°C Heat-sink	--	0.15	0.17	--
Emission area	--	--	2.6 x 2.6	--	mm ²

* 100 microseconds, 1% Duty Cycle

Maximum Absolute Ratings

PARAMETER	CONDITIONS
Forward current	50 A
Reverse current	25 μA
Operating temperature	0 to +80 °C
Storage temperature	-40 to +80 °C

Ordering information

PQCW – CS6 – 30 – W0808

Heat Spreader Type

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Wavelength (nm)

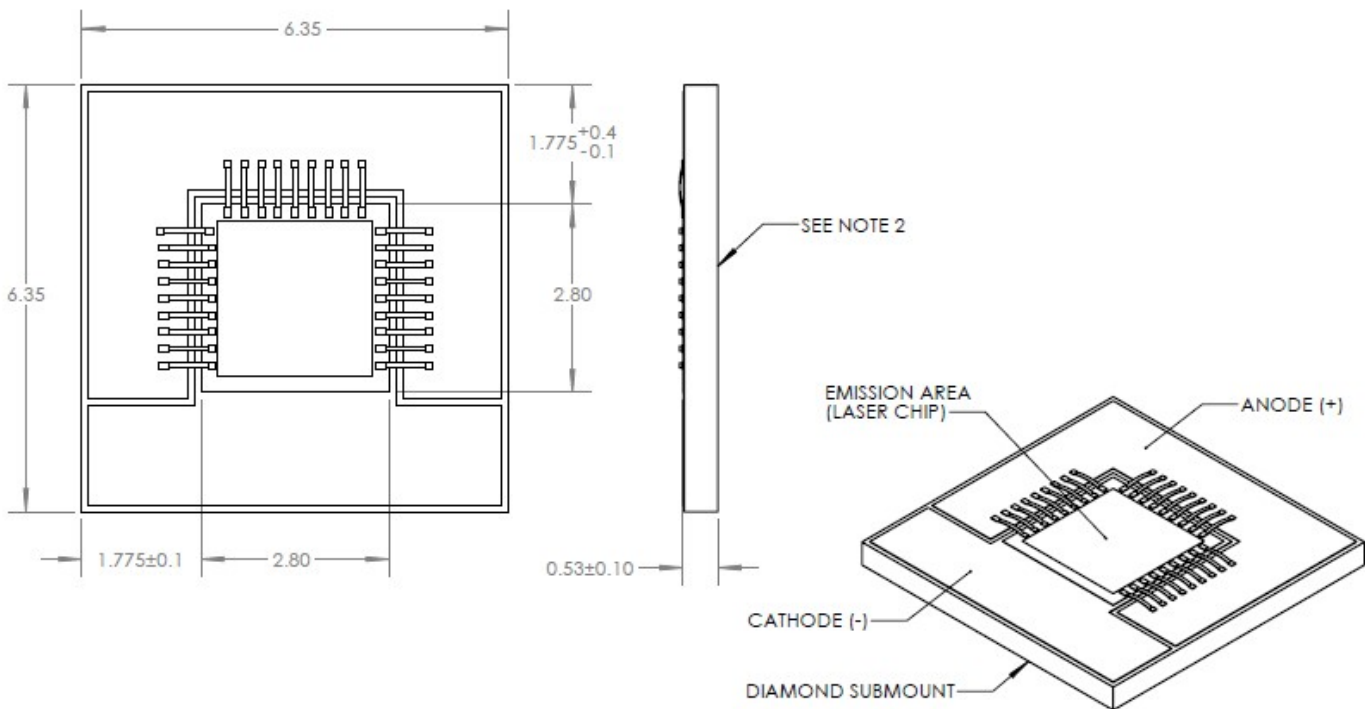
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QCW Output Power (W)

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Mechanical Characteristics

PARAMETER	CONDITIONS
Package width	6.35 ± 0.01 mm
Package length	6.35 ± 0.01 mm
Package height	0.63 ± 0.01 mm
Thermal resistance	< 0.6 °C/W
Max solder temperature	140 °C
Metallization	Ti/Pt/Au + 12 μm Au



NOTES:

1. ANODE AND CATHODE METALLIZATION: 2 μm Au.
METALLIZATION PULLBACK: 0.10 ± 0.05 mm.
2. FULL BACKSIDE METALLIZATION: 2 μm Au.
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.D- 8/16