

4W 808nm VCSEL Array on CE-Mount PCW-CE-4-W808

- 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 temperatures reliably
- Ideal for target designation

Optical & Electrical Characteristics

PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
CW Output power	20°C Heat-sink	3	4	--	W
Threshold current	20°C Heat-sink	--	1	3	A
Operating current	P _{OUT} , 20°C Heat-sink	--	4	5	A
Operating voltage	P _{OUT} , 20°C Heat-sink	--	2	2.5	V
Differential resistance	P _{OUT} , 20°C Heat-sink	--	130	200	mΩ
Slope efficiency	20°C Heat-sink	0.8	1.1	--	W/A
Conversion efficiency	P _{OUT} , 20°C Heat-sink	35	45	--	%
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	--	--	0.070	nm/°C
Beam divergence (FW 1/e ²)	P _{OUT} , 20°C Heat-sink	--	18	--	--
Emission area	--	--	1.5 x 1.5	--	mm ²

Maximum Absolute Ratings

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

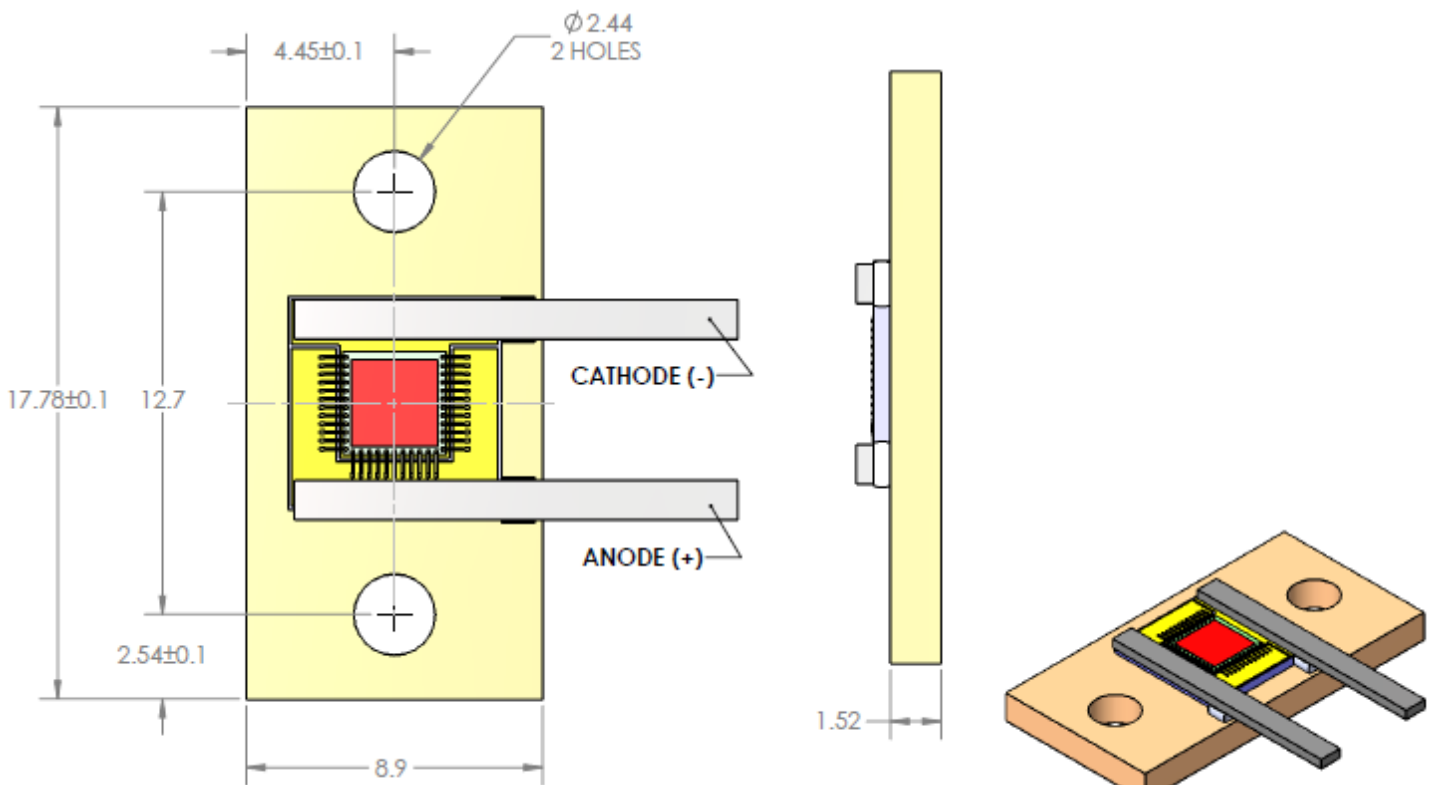
Ordering Information

PCW – CE – 4 – W0808

Heat-spreader Type _____ Wavelength (nm)
 _____ CW Output Power (W)

Mechanical Characteristics

PARAMETER	CONDITIONS
Package width	8.9 ± 0.1 mm
Package length	17.78 ± 0.1 mm
Package height	3.0 ± 0.1 mm
Light emitting area	1.5 x 1.5 mm ²
Max solder temperature	118 °C



NOTES:

1. WIREBONDS SHOWN FOR INFORMATION ONLY. ACTUAL WIREBOND SIZE, NUMBER AND CONFIGURATIONS MAY VARY.
2. OBSERVE PRECAUTIONS FOR HANDLING: ELECTRODES ARE CONNECTED TO ELECTROSTATIC SENSITIVE DEVICES.

Copyright © 2014 Princeton Optronics, Inc.
All Rights Reserved.

Princeton Optronics reserves the right to change product design and specifications at any time without notice.

No license is granted by implication or otherwise under any patents or patent right of Princeton Optronics. No responsibility is assumed for the use of these products, nor for any infringement on the rights of others resulting from the use of these products

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.

