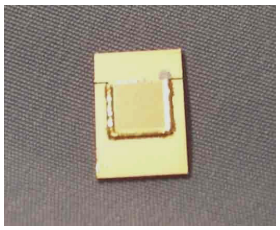
PRINCETON OPTRONICS

VCSEL Chip-on-Submount, kW-Class (QCW) for End Pumping of Solid-State Lasers Part # PQCW-CS1-700-W0976

- *Vertical-Cavity Surface-Emitting Laser technology*
- *Uniform pumping & reliable operation*
- *Simple packaging*
- *976nm wavelength, 100µs – 3ms operation*
- *Custom wavelengths available (780-1100nm)*
- *Application: QCW end pumping of solid-state laser*

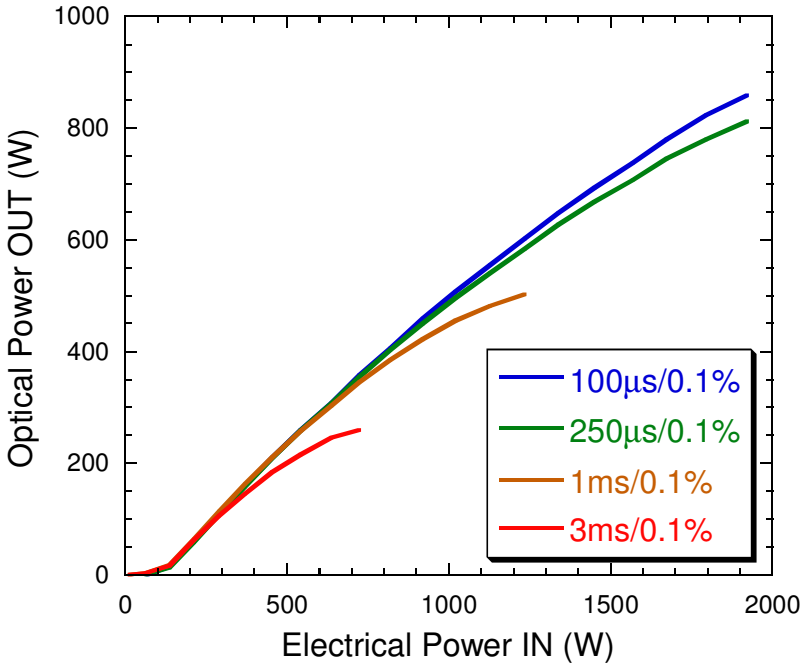


Optical & Electrical Characteristics (1)

PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
QCW Output Power	20C	700	800	--	W
Wall-plug efficiency	400W, 20C	45	55	--	%
Center wavelength	700W, 20C	965	975	985	nm
Spectral width (FWHM)	700W, 20C	--	1	3	nm
Wavelength shift	20C	0.060	0.065	0.070	nm/°C
Divergence (half angle)	700W, 20C	--	0.15	0.2	rad
Emission area	--	--	4.7 x 4.7	--	mm x mm

(1) Optical & electrical characteristics specified under 250µs/4Hz QCW operation. Other operating conditions, such as 100µs/10Hz for example can be used.

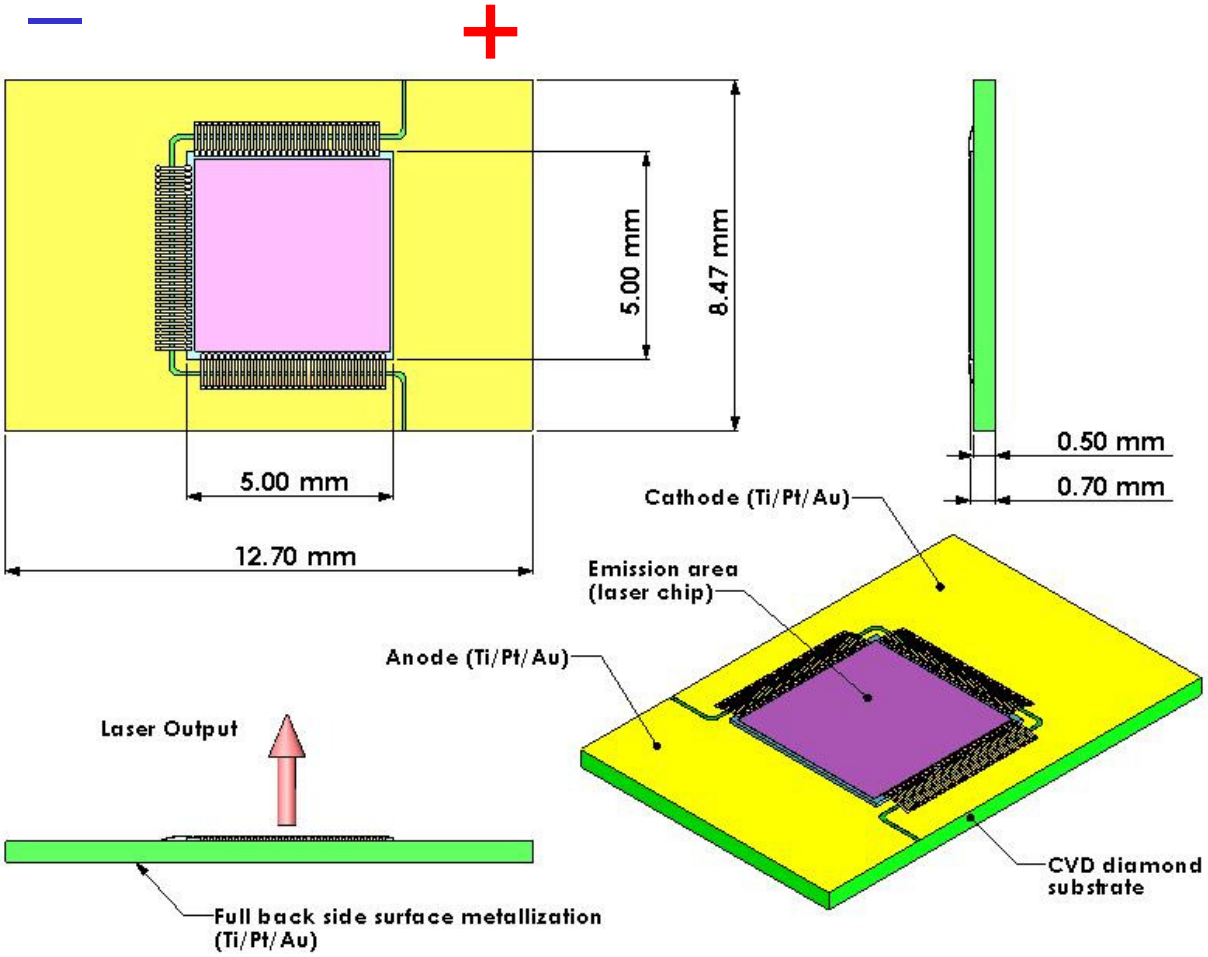
Typical performance



Princeton Optronics, Inc. * 1 Electronics Drive * Mercerville, New Jersey 08619
Voice: (609) 584-9696 * Fax: (609) 584-2448 * E-mail: sales@princetonoptronics.com * www.princetonoptronics.com

Mechanical Characteristics

PARAMETER	VALUE
Package width	8.47 +/-0.1 mm
Package length	12.70 +/-0.1 mm
Package height	0.70 +/-0.1 mm
Thermal resistance	< 0.2 °C/W
Max solder temperature	140 °C
Metalization	Ti/Pt/Au + 12μm Au



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.

REV. B – 04/11

Princeton Optronics, Inc. * 1 Electronics Drive * Mercerville, New Jersey 08619
Voice: (609) 584-9696 * Fax: (609) 584-2448 * E-mail: sales@princetonoptronics.com * www.princetonoptronics.com