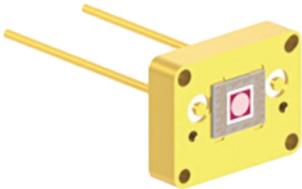


# FLIR VCSEL™



## High-Power VCSEL Arrays

FLIR's proprietary Vertical-Cavity, Surface-Emitting Laser (VCSEL) technology is ideal for illumination applications, producing unmatched low-speckle and uniform-illumination quality. FLIR offers high-power VCSEL arrays producing up to 5W of continuous wave output power in an easy-to-mount vertical pin package. Currently offered at 1060 nm, 8xx and 9xx nm wavelengths will soon be available.

## KEY FEATURES

- Improved eye-safety from VCSELs over conventional laser diodes
- Very low speckle, uniform beam
- Circular beam for easy coupling
- Optional hermetic packaging for operation in harsh environments
- High reliability

## RELATED INTEGRATED VCSEL ILLUMINATION SYSTEMS:



CLI-2W

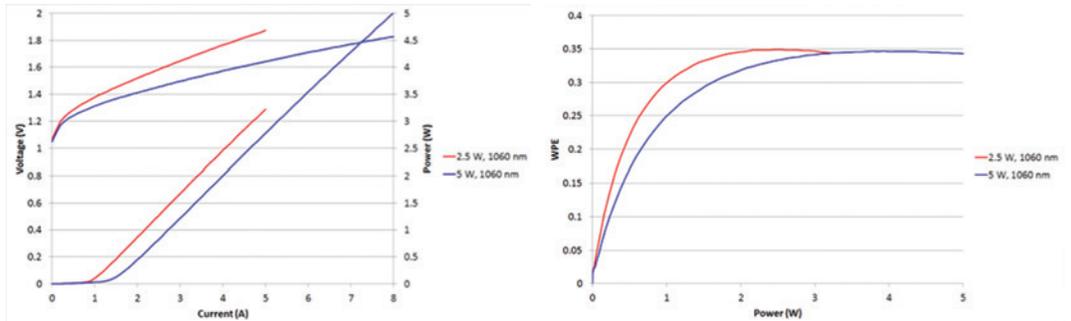


CLI-30

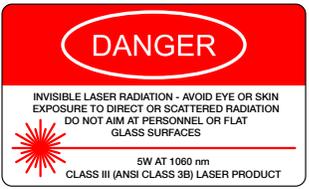
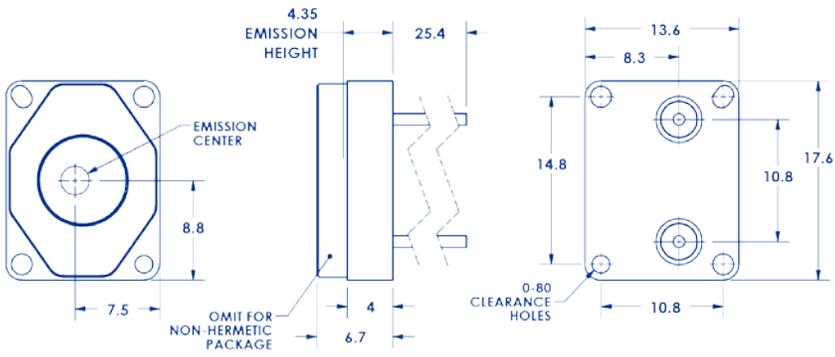
# Specifications

Model: CWV-HPTD-Px-Wy			
Parameter	Conditions	Typical Values	Unit
(y) Wavelength	20°C, P <sub>op</sub>	1060	nm
(x) CW Output Power, P <sub>op</sub>	20°C, P <sub>op</sub>	2.5 5.0	W
Conversion Efficiency	20°C, P <sub>op</sub>	34	%
Threshold Current	20°C	1.0 1.5	A
Operating Current	20°C, P <sub>op</sub>	4.1 8.0	A
Operating Voltage	20°C, P <sub>op</sub>	1.8	V
Slope Efficiency	20°C	0.8	W/A
FWHM Divergence	20°C, P <sub>op</sub>	20	°
FWHM Spectral Width	20°C, P <sub>op</sub>	1	nm
Wavelength Shift		0.075	nm/°C
Emission Diameter (circular array)		1.3 1.8	mm

## Example of electrical and optical characteristics



## HP-TD Package Technical Drawing



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