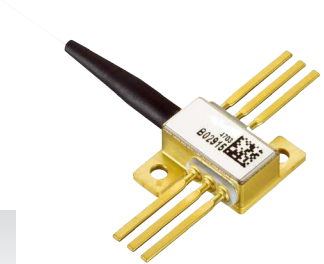


808 nm 6-pin Wavelength-Stabilized Lasers

Compound Photonics' Wavelength-Stabilized Technology (WST) pump lasers enable narrow spectral width and minimizes wavelength shift over temperature while maintaining high power conversion efficiency. These lasers do not require temperature control to maintain wavelength, reducing their energy consumption by up to three times over a thermally-controlled pump laser. These fiber-coupled devices offer 3 or 5 watts ex-fiber in high-reliability packages with 105 $\mu\text{m}/0.15$ NA or 200 $\mu\text{m}/0.22$ NA fiber. Fiber-coupled packages are fully qualified to GR-468.



Key Characteristics

- On-chip semiconductor grating
- Stable wavelength with temperature changes
- Narrow linewidth (~ 0.1 nm)
- Proven lifetime and fully environmentally qualified

Applications

- DPSS laser pumping
- Alkali pumping
- Spectroscopy

Device Parameters*

Electro-Optical	Symbol	XM6-808CW-10-301			XM6-808CW-30-501			Units
		Min	Typ	Max	Min	Typ	Max	
Center wavelength	λ_c	808 \pm 1.5			808 \pm 1.5			nm
Output power	P_o	3.0			5.0			W
Operating current	I_o	4.1			6.5			A
Forward voltage	V_f	1.7	1.8		1.73	1.8		V
Threshold current	I_{th}	0.6			1.35			A
Spectral width, FWHM	$\Delta\lambda$	0.15			0.15			nm

Thermal

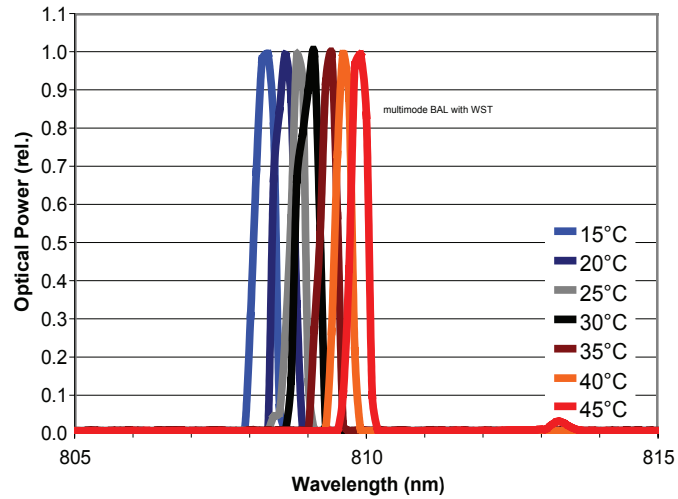
Spectral shift with temperature		0.065			0.065			nm/ $^{\circ}\text{C}$
Spectral shift with power		0.4			0.2			nm/W
Locking range over temperature		15	45		15	45		$^{\circ}\text{C}$
Locking range of power		0.2	2.0		0.2	5.0		W
Thermistor value at 25 $^{\circ}\text{C}$	R_{th}	9.5	10	10.5	9.5	10	10.5	k Ω
Thermistor constant, 0 - 50 $^{\circ}\text{C}$	β	3892			3892			K

Mechanical

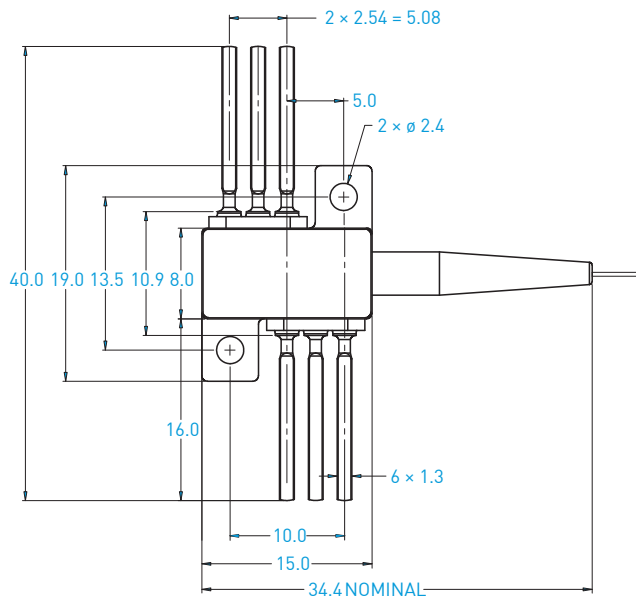
Case operating temperature		0	50		0	50		$^{\circ}\text{C}$
Case storage temperature		-40	85		-40	85		$^{\circ}\text{C}$
Fiber core diameter		105			200			μm
Fiber numerical aperture	NA	0.15			0.22			
Fiber length		1.5			1.5			m
Fiber pull strength		1.0			1.0			kg-f

*All conditions at 25 $^{\circ}\text{C}$ case temperature and nominal output power unless otherwise noted.

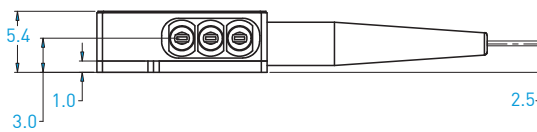
Typical Spectral Performance



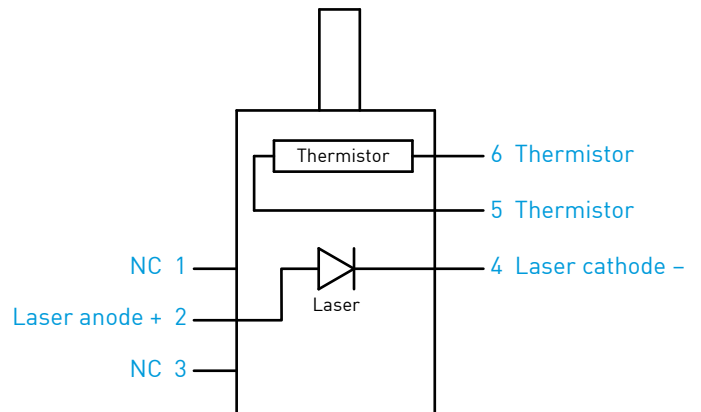
Package Dimensions



All units in mm



Package Pinout



For more information, ordering, and support.

www.compoundphotonics.com

QS4345 v8.1