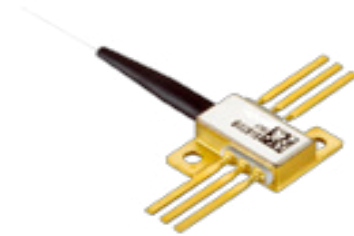


GENERAL DESCRIPTION
Package – 6 Pin Wavelength-Stabilised

Compound Photonics' Wavelength-Stabilised Technology (WST) technology provides a narrow spectral width and significantly reduces the spectral shift with 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 fibre-coupled devices offer 3 Watts ex-fibre in high-reliability packaging with 105 µm/0.15 NA fibre. Fibre-coupled packages are fully qualified to Telcordia GR-468 specifications.


Key Characteristics

- Monolithic semiconductor grating
- Stable wavelength over temperature
- Narrow line-width (0.1 nm)
- Proven lifetime and fully environmentally qualified

Applications

- DPSS laser pumping
- Alkali pumping
- Spectroscopy

		PART NUMBER			
		XM6-808CW-10-301			
		SPECIFICATION			
PARAMETERS*	SYMBOL	MIN	TYP	MAX	UNIT
ELECTRO OPTICAL					
Centre Operating Wavelength	λ_c	806.5	808	809.5	nm
Output Power	P_o	3.0			W
Operating Current	I_o		4.0		A
Operating Voltage	V_o		1.65	1.7	V
Threshold Current	I_{th}		0.55		A
Spectral Width (FWHM)	$\Delta\lambda$		0.5		nm
THERMISTOR					
Thermistor Value at 25°C	R_{th}	9.5	10	10.5	k Ω
Thermistor Constant, 0 - 50°C	β		3892		K
Spectral Shift Over Temperature	$d\lambda/dT$		0.07		nm/°C
Locking Range over Temperature [‡]	T_c	20		45	°C
Locking Range of Power [‡]	P_o	0.2		3.0	W

		PART NUMBER			
		XM6-808CW-10-301			
		SPECIFICATION			
PARAMETERS*	SYMBOL	MIN	TYP	MAX	UNIT
MECHANICAL					
Case Operating Temperature	T _c	0	25	50	°C
Case Storage Temperature		-40		85	°C
Fibre Core Diameter		102	105	108	µm
Fibre Numerical Aperture	NA	0.13	0.15	0.17	
Fibre Length		1.0	1.5	1.8	m

*All conditions at 25°C case temperature and I_o unless otherwise noted.

ABSOLUTE MAXIMUM RATINGS (non-operating)

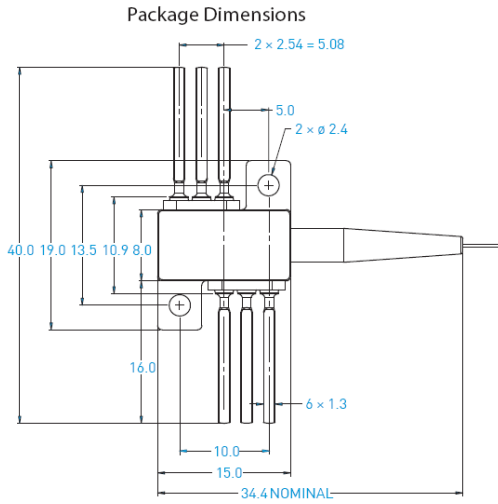
PARAMETERS**	RATING		UNIT
	MIN	MAX	
GENERAL			
Soldering Temperature***		260	°C
Soldering Duration		10	sec
Mounting Torque		15	in-oz
Short-term Fibre Bend Radius	12.5		mm
Long-term Fibre Bend Radius	25		mm
LD Reverse Current		10	mA
LD Current Transient Max (t = 100 ns)		1000	mA
LD ESD Damage		HBM > 1000 V	C = 100pF R = 1.5kΩ
Thermistor Voltage		5	V
Thermistor Current		2	mA

‡Power outside of 804-812 nm range is less than 10% of the total power.

**These are safe short-term exposure limits, non-operating. Prolonged exposure to conditions at the absolute maximum ratings will have a deleterious effect on reliability and could shorten diode lifetime.

***No point on the package (other than the leads) should exceed the maximum case storage temperature during soldering.

MECHANICAL DIMENSIONS AND PINOUT



All units in mm

