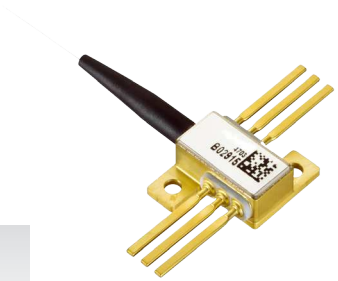
COMPOUND PHOTONICS

9xx nm Uncooled Pumps for Industrial Applications

Compound Photonics' high-reliability pump lasers offer exceptional reliability for use in fiber lasers and high-power amplifiers. Thes fiber-coupled devices offer up to 10 watts ex-fiber in high-reliability packages with high-brightness 105 µm, 0.15 or 0.22 NA fiber. Lifetime and full qualification reports available upon request.



Key Characteristics

- Hermetic, epoxy-free package
- Available in 915, 940, or 976 nm wavelengths
- Up to 10 watts output power
- Exceptional lifetime & reliability

Applications

- Fiber laser pumping
- High-power fiber amplifiers
- Direct material processing
- Thermal processing

Device Parameters*

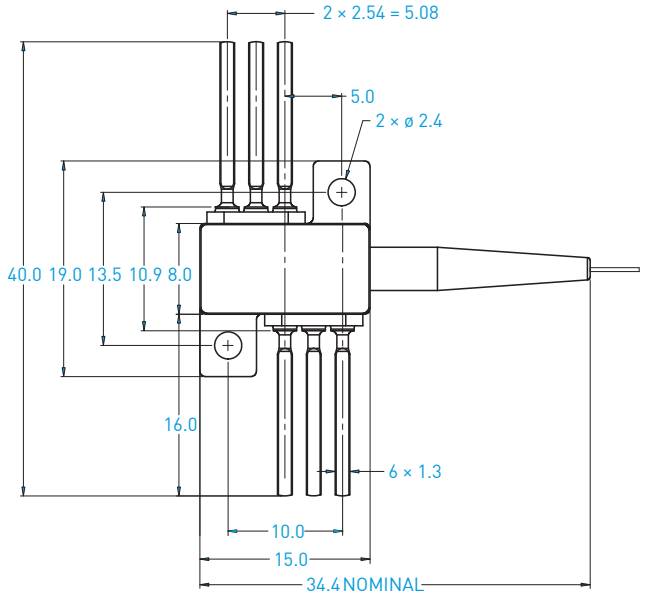
		AM6-915B-10-108 AM6-915B-20-108			AM6-940B-10-108 AM6-940B-20-108			AM6-976E-10-804 AM6-976E-20-804			
Electro-Optical	**Symbol**	**Min**	**Typ**	**Max**	**Min**	**Typ**	**Max**	**Min**	**Typ**	**Max**	**Units**
Center wavelength	λ_c		915 ± 8			940 ± 8			976 ± 4		nm
Output power	P_o		10			10			8		W
Operating current	I_o		11			11			9		A
Forward voltage	V_f		1.85			1.85			1.8		V
Threshold current	I_{th}		0.45	0.6		0.45	0.6		0.45		A
Spectral width, FWHM	$\Delta\lambda$		2.7			4			2		nm
Thermal											
Thermistor value at 25°C	R_{th}	9.5	10	10.5	9.5	10	10.5	9.5	10	10.5	kΩ
Thermistor constant, 0 - 50°C	β		3892			3892			3892		K
Spectral shift with submout temperature			0.32			0.4			0.4		nm/°C
Mechanical											
Case operating temperature		0		50	0		50	0		50	°C
Case storage temperature		–40		85	–40		85	–40		85	°C
Fiber core diameter			105			105			105		µm
Fiber numerical aperture	NA		0.15 or 0.22			0.15 or 0.22			0.15 or 0.22		
Fiber length			1.5			1.5			1.5		m
Fiber pull strength			1.0			1.0			1.0		kg-f

*All conditions at 25°C case temperature and nominal output power unless otherwise noted.

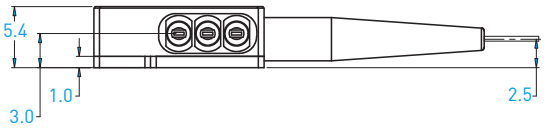
Absolute Maximum Ratings*	Min	Max	Units
Soldering temperature **		260	°C
Soldering duration**		10	s
Mounting torque		24	in-oz
Short-term fiber bend radius	12		mm
Long-term fiber bend radius	25		mm
LD reverse current		10	mA
LD current transient max		t = 100 ns 1000 mA	
LD ESD damage C=100 pF, R=1.5 kW		HBM > 1000 V	
Thermistor voltage		5	V
Thermistor current		2	mA

* 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.

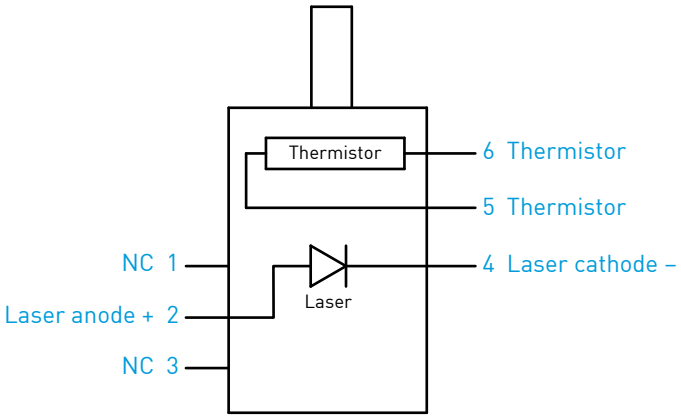
Package Dimensions



All units in mm



Package Pinout



For more information, ordering, and support.
www.compoundphotonics.com

QS4225 v8.0