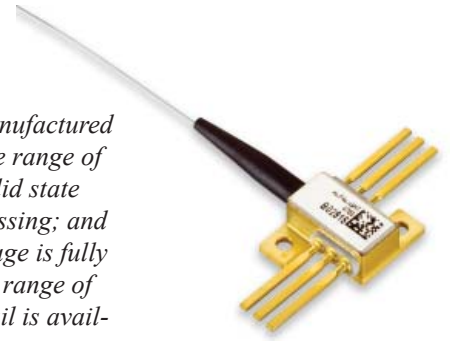




## 6-Pin Uncooled Industrial Pump

Alfalight's high-reliability 915 and 976 nm diode lasers are manufactured in an uncooled hermetic package. This laser is ideal for a wide range of applications, including pumping fiber lasers, diode-pumped solid state lasers (DPSS), uncooled fiber amplifiers; direct material processing; and laser-initiated ordnance (LIO). The 6-pin butterfly-style package is fully hermetic, epoxy-free and provides the ruggedness needed for a range of high reliability industrial installations. The 105- $\mu\text{m}$  fiber pigtail is available with a numerical aperture of 0.15 or 0.22.



- Available in 915 nm and 976 nm wavelengths
- Hermetic, epoxy-free package
- Very high reliability
- Up to 10 watts output power
- Fiber output NA of 0.15 and 0.22 available

### Device Characteristics\*

Electro-Optical	Symbol	AM6-915B-10-108 AM6-915B-20-108			AM6-976E-10-104 AM6-976E-20-104			Units
		Min	Typ	Max	Min	Typ	Max	
Center wavelength	$\lambda_c$		915 $\pm$ 8		976 $\pm$ 4			nm
Output power	$P_o$		10		10			W
Operating current	$I_o$		11		11			A
Forward voltage	$V_o$		1.85		1.85			V
Threshold current	$I_{th}$		0.45		0.45			A
Spectral width	$\Delta\lambda$		2.7		2.7			nm
Power conversion efficiency	PCE		50		50			%

### Temperature

Thermistor value at 25°C	$R_{th}$	9.5	10	10.5	9.5	10	10.5	k $\Omega$
Thermistor constant, 0 - 50°C	$\beta$		3892		3892			K
Spectral shift	$d\lambda/dT$		0.32		0.32			nm/°C

### Mechanical

Case operating temperature		0	50	0	50	°C
Case storage temperature		-40	85	-40	85	°C
Fiber core diameter		105		105		$\mu\text{m}$
Fiber cladding diameter		125		125		$\mu\text{m}$
Fiber NA	NA	0.15 or 0.22		0.15 or 0.22		
Fiber length		1.5		1.5		m

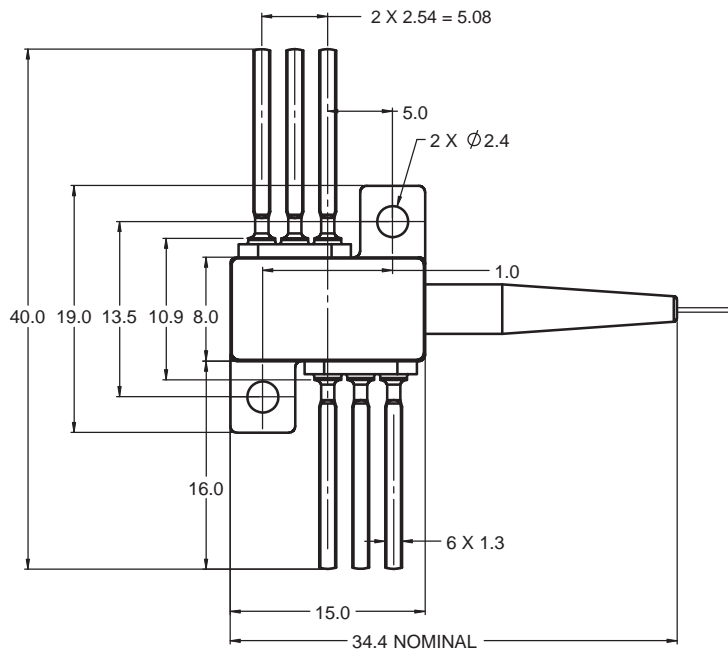
\* All conditions are at 25°C submount temperature, measured in CW conditions, unless otherwise noted.

Absolute Maximum Ratings*	Min	Max	Units
Soldering temperature **		260	°C
Soldering duration**		10	s
Mounting torque		10	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		100ns, 1000 mA	
Thermistor voltage		5	V
Thermistor current		2	mA

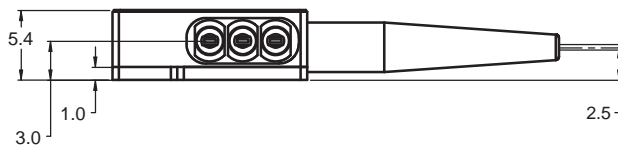
\* These are safe short-term exposure limits, non-operating. Prolonged exposure to conditions at the absolute maximum ratings will have a deleterious effect on reliability and could shorten diode lifetime.

\*\* 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

