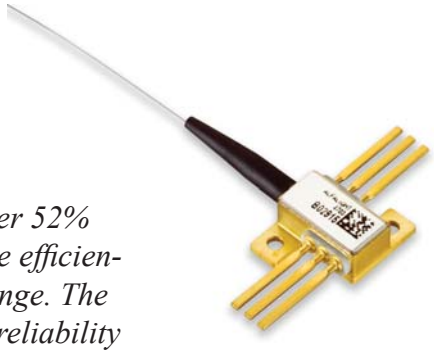
6-Pin Uncooled Industrial Laser With Monitor Photodiode



NEW!

Alfalight's generation B 808 nm pump lasers offer over 52% power conversion efficiency, low threshold, high slope efficiency, and excellent stability over a wide temperature range. The fiber-coupled devices offer 2.0 watts ex-fiber in high-reliability cooled or uncooled packages with high-brightness 105µm, 0.15NA fiber. Fiber-coupled packages have been qualified to Telcordia GR-468 standards. The integrated photodiode can be used for monitoring power out of the fiber over the operating temperature range.

- High brightness 105µm/0.15 NA fiber
- High reliability and efficiency
- Hermetic, epoxy-free package
- Power monitoring photodiode
- Environmentally-rugged

Device Characteristics*

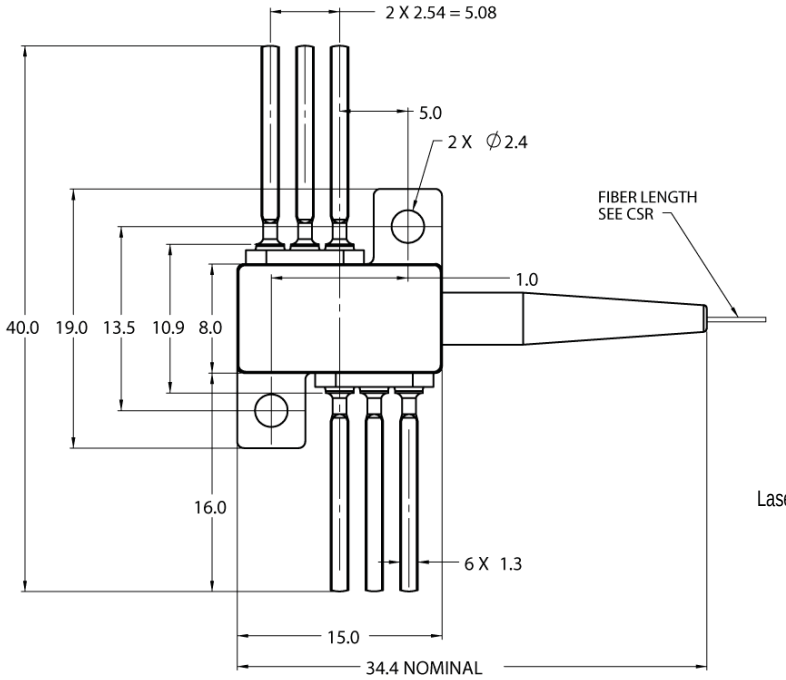
Electro-Optical	Symbol	Min	Typ	Max	Units
Center wavelength	λ_c	805	808	8011	nm
Output power	P_o	2.0			W
Operating current	I_o		2.3	2.5	A
Operating voltage	V_o		1.7	1.8	V
Threshold current	I_{th}		0.43	0.5	A
Spectral width	$\Delta\lambda$		2.0	3.5	nm
Temperature					
Thermistor value at 25°C	R_{th}	9.5	10	10.5	kΩ
Thermistor constant, 0 - 50°C	β		3892		K
Spectral shift	$d\lambda/dT$		0.33		nm/°C
Mechanical					
Case operating temperature	T	0		50	°C
Case storage temperature	T	–40		80	°C
Fiber core diameter			105		µm
Fiber NA	NA		0.15		
Fiber length			1.5		m
Fiber pull strength			1.0		kg

** All conditions are at 25°C submount temperature and output power unless otherwise noted.*
*** Preliminary specifications.*

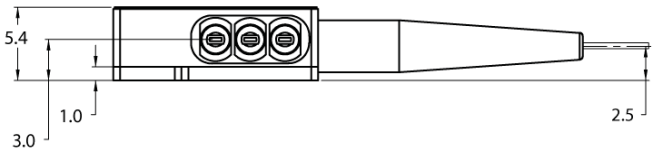
Absolute Maximum Ratings**	Min	Max	Units
Soldering temperature ***		250	°C
Soldering duration***		10	s
Mounting torque		10	in-oz
Short term fiber bend radius	12.5		mm
LD reverse current		10	mA
LD current transient max		100ns, 1000 mA	
Thermistor voltage		5	V
Thermistor current		2	mA

** *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.*

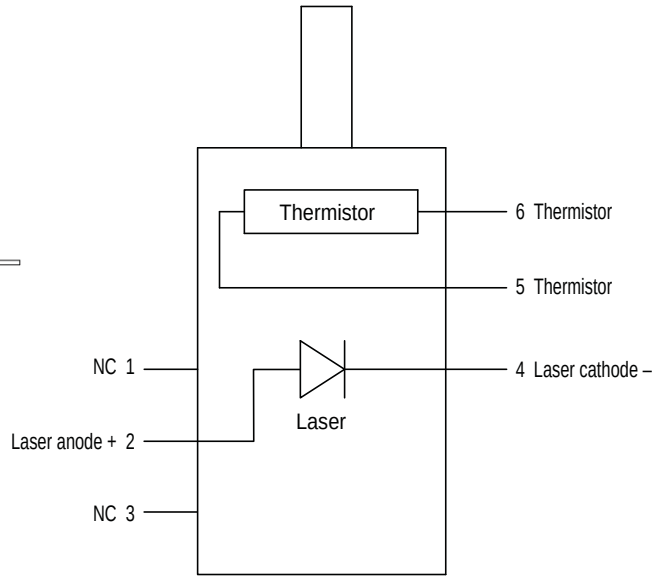
Package Dimensions



All units in mm



Package Pinout



Alfalight, Inc.
1832 Wright Street • Madison, WI 53704 • 608.240.4800 ***telephone*** • 608.240.4801 ***facsimile*** • **alfa-sales@alfalight.com**