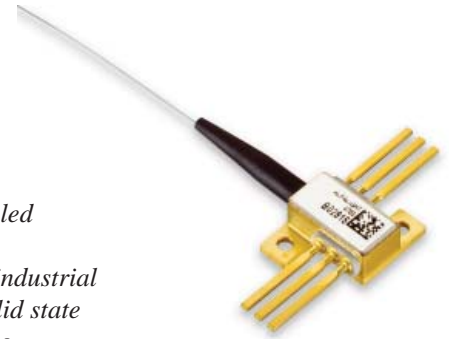




## 10 Watt 6-Pin 940 nm Uncooled Pumps



The Alfalight AM6-940B-20-108 (10 watt, 940 nm) is an uncooled multimode laser in a 6-pin package incorporating a thermistor for temperature monitoring. This device is ideal for numerous industrial applications, including pumping fiber lasers, diode-pumped solid state lasers, uncooled fiber amplifiers; and direct material processing.

- $940 \pm 8$  nm wavelength
- Up to 10 watts output power
- High brightness  $105\mu\text{m}/0.22^\dagger$  NA fiber
- Hermetic, epoxy-free package
- High reliability

### Device Characteristics\*

AM6-940B-20-108

Electro-Optical	Symbol	Min	Typ	Max	Units
Center wavelength	$\lambda_c$	932	940	948	nm
Output power	$P_o$		10		W
Operating current	$I_o$		11		A
Forward voltage	$V_o$		1.85	2.2	V
Threshold current	$I_{th}$		0.45	0.6	A
Spectral width	$\Delta\lambda$		4.0		nm

### Temperature

Thermistor value at 25°C	$R_{th}$	9.5	10	10.5	k $\Omega$
Thermistor constant, 0 - 50°C	$\beta$		3892		K
Spectral shift	$d\lambda/dT$		0.33		nm/°C

### Mechanical

Case operating temperature	T	0		50	°C
Case storage temperature		-40		85	°C
Fiber core diameter			105		$\mu\text{m}$
Fiber cladding diameter			125		$\mu\text{m}$
Fiber NA	NA		0.22 <sup>†</sup>		
Fiber length		1.25	1.5	1.8	m

\* All conditions are at 25°C submount temperature unless otherwise noted.

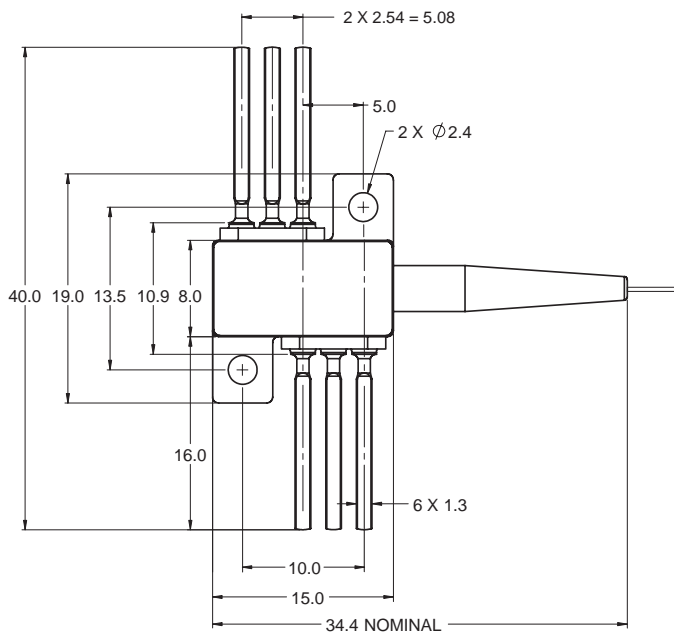
<sup>†</sup> 0.15 NA is also available upon request

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		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

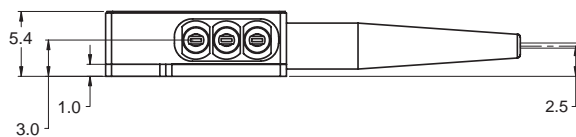
\*\*These are safe short-term exposure limits, non-operating. Prolonged exposure to conditions at the absolute maximum ratings will have a deleterious effect on reliability and could shorten diode lifetime.

\*\*\* 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

