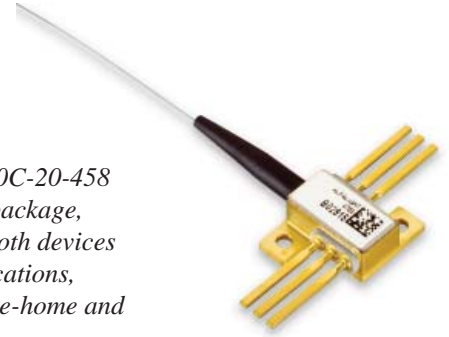




6-Pin Uncooled 940 nm Pumps for Telecom Applications

The *Alfalight AM6-940B-20-608* (6 watt, 940 nm) and *AM6-940C-20-458* (4.5 watt, 940 nm) are uncooled multimode devices in a 6-pin package, also incorporating a thermistor for temperature monitoring. Both devices offer exceptional reliability and are qualified for telecom applications, including CATV cladding-pumped amplifiers used in fiber-to-the-home and video distribution applications.



- Hermetic, epoxy-free package
- Qualified to all Telcordia GR-468 requirements at up to 6 watt output power
- High brightness 105 μm /0.22 NA fiber
- Exceptional uncooled lifetime

Device Characteristics*

Electro-Optical	Symbol	AM6-940B-20-608			AM6-940C-20-458			Units
		Min	Typ	Max	Min	Typ	Max	
Center wavelength	λ_c	940 \pm 8			940 \pm 8			nm
Output power	P_o	6.0			4.5			W
Operating current	I_o	6.4	7.3		5.4	6.2	A	
Forward voltage	V_o	1.7			1.6			V
Threshold current	I_{th}	0.45	0.6		0.4	0.7	A	
Spectral width	$\Delta\lambda$	3			2			nm

Temperature

Thermistor value at 25°C	R_{th}	9.5	10	10.5	9.5	10	10.5	k Ω
Thermistor constant, 0 - 50°C	β	3892			3892			K
Spectral shift with submount temperature	$d\lambda/dT$	0.32			0.4			nm/°C

Mechanical

Case operating temperature		-5	70	-5	70	°C		
Case storage temperature		-40	85	-40	85	°C		
Fiber core diameter		105			105			μm
Fiber cladding diameter		125			125			μm
Fiber NA	NA	0.22			0.22			
Fiber length		1.5			1.5			m

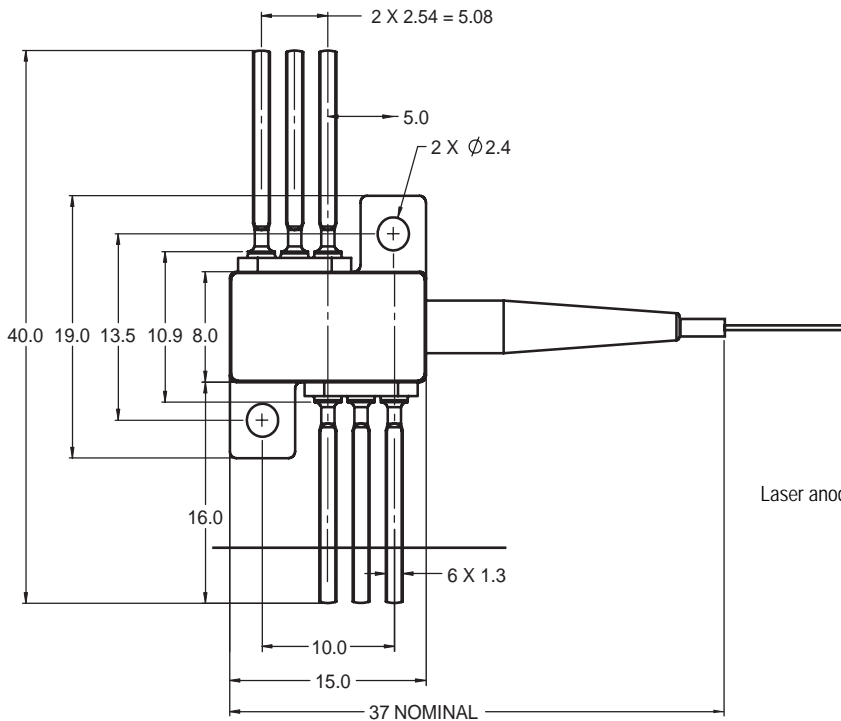
* All conditions are at 25°C case temperature unless otherwise noted.

Absolute Maximum Ratings*	Min	Max	Units
Soldering temperature **		260	°C
Soldering duration**		10	s
Mounting torque		15	in-oz
Short term fiber bend radius	12		mm
Long term fiber bend radius	25		mm
LD reverse current		10	mA
Thermistor voltage		5	V
Thermistor current		2	mA

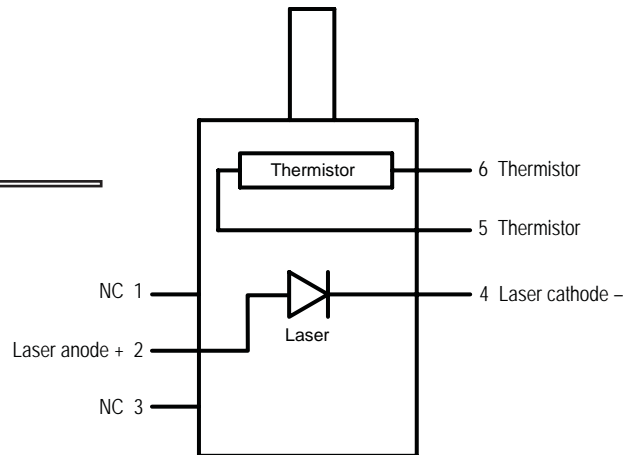
* These are safe short-term exposure limits, non-operating. Prolonged exposure to conditions at the absolute maximum ratings will have a deleterious effect on reliability and could shorten diode lifetime.

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

Package Dimensions



Package Pinout



All units in mm

