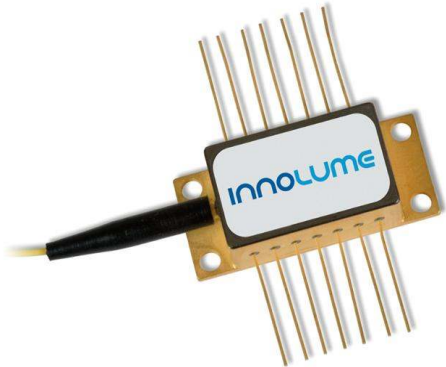


LD-1080-BF-200	
High Power Diode Laser – 200mW @1080nm in single mode fiber	
	<p><b>Features:</b></p> <ul style="list-style-type: none"> <li>Proprietary mirror coating technology enabling long life-time</li> <li>CW or pulse (down to 2ns) operation</li> <li>High reliable Au/Sn-technology</li> <li>Optional: polarization maintaining fiber PM980 (PER&gt;15dB)</li> <li>Optional: monitor photodiode for power control</li> </ul> <p><b>Applications:</b></p> <ul style="list-style-type: none"> <li>Seeding of fiber lasers</li> <li>Instrumentation/measurement equipment</li> <li>Defense</li> </ul>
<b>Specification</b>	DATE: 5 <sup>th</sup> March 2010

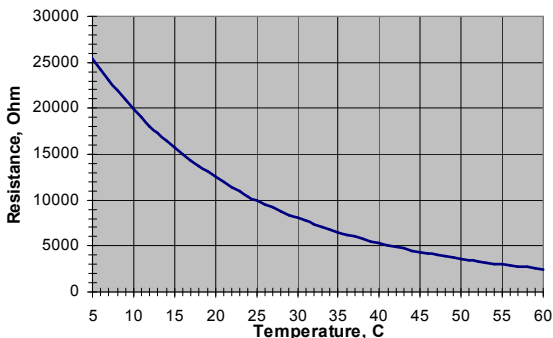
SPECIFICATIONS					
Test conditions: CW operation at P <sub>out</sub> , thermistor temperature 25°C					
Parameters	Symb.	Min.	Typ.	Max.	Unit
Output power	P <sub>out</sub>	200			mW
Mean wavelength at P <sub>out</sub>	λ <sub>P</sub>	1070	1080	1090	nm
Spectral width (FWHM)	Δλ		3	6	nm
Wavelength temperature tunability	Δλ/ΔT	0.3	0.35	0.4	nm/°C
Threshold current	I <sub>th</sub>		80	150	mA
Operating current	I <sub>op</sub>		400	600	mA
Forward voltage	V <sub>f</sub>		1.5	1.7	V
Polarization extinction ratio <sup>1</sup>	PER	15	17		dB
Monitor photodiode responsivity <sup>2</sup>			0.1		μA/mW
Recommended operating temperature (on thermistor)	T <sub>op</sub>	10	25	40	°C

<sup>1</sup> In the case of PM980 fiber option chosen.

<sup>2</sup> In the case of monitor photodiode option chosen.

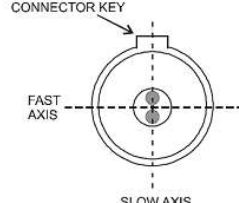
THERMISTOR SPECIFICATION		
Parameters	Value	Unit
Thermistor type	BC103J1K	
Resistance @25°C	10 ± 1	kOhm
Beta 0-50°C	3890	K

R-T CURVE



FIBER SPECIFICATION			
Parameters	HI1060	PANDA PM980	Unit
Mode-field diameter	6.2±0.3	6.6±1.0	μm
Cladding diameter	125±0.5	125±1	μm
Coating diameter	245±10	245±15	μm
Numerical Aperture	0.14		
Core-to-cladding offset	≤0.3	≤0.5	μm
Length	1.0 ± 0.1	1.0 ± 0.1	m
Connector	FC/APC	FC/APC	

CONNECTOR KEY



FAST AXIS

SLOW AXIS

ABSOLUTE MAXIMUM RATINGS			
Parameters	Min.	Max.	Unit
Laser Diode reverse voltage		2	V
Laser Diode CW forward current		$I_{op}+200$	mA
Thermo Electric Cooler current		3	A
Thermo Electric Cooler voltage		4	V
Fiber bend radius		3	cm
Storage temperature range (in original sealed pack)	5	80	°C
Case operating temperature range	5	50	°C

**DIMENSIONS** (All sizes in mm)

**Pin identification:**

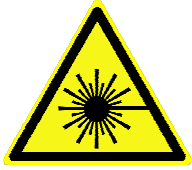
- TEC "+"
- Thermistor
- Monitor PD anode
- Monitor PD cathode
- Thermistor
- 
- 
- 
- 
- Laser Diode anode "+"
- Laser Diode cathode "-"
- 
- Case
- TEC "-"

**SAFETY AND OPERATING INSTRUCTIONS**

The laser light emitted from this device is invisible and will harmful to the human eye. Avoid looking directly into the output fiber or into the collimated beam along its optical axis when the device is in operation. Proper laser safety eyewear must be worn during operation.

Operating the device outside of its maximum ratings may cause device failure or a safety hazard. Power supplies used with the component must be employed such that the maximum peak optical power cannot be exceeded. A proper heatsink for the Laser Diode module is required. Exposure to maximum ratings for extended period of time or exposure above one or more max ratings may cause damage or affect the reliability of the device.

ESD PROTECTION – Electrostatic discharge is the primary cause of unexpected Laser Diode failure. Take extreme precaution to prevent ESD. Use wrist straps, grounded work surfaces and rigorous antistatic techniques when handling laser diodes.



**LASER RADIATION**  
 AVOID EYE OR SKIN EXPOSURE TO  
 DIRECT OR SCATTERED RADIATION  
 CLASS 4 LASER PRODUCT

**CAUTION**  
 STATIC SENSITIVE DEVICE  
 OBSERVE PRECAUTIONS

DANGER

VISIBLE AND/OR INVISIBLE LASER RADIATION  
 AVOID EYE OR SKIN EXPOSURE TO  
 DIRECT OR SCATTERED RADIATION

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DIODE LASER  
 MAX POWER 1W  
 WAVELENGTH 1000 - 1400 nm  
 CLASS IV LASER PRODUCT

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**NOTE: Innolume product specifications are subject to change without notice.**