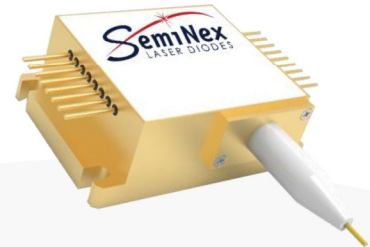


High Power Laser Diode 2CM Fiber Module



Part Number: 2CM-004-189

High Power 2CM Fiber Coupled Module
Multi-Mode Fabry-Perot
CW Wavelength at 1550nm



Features

- Two Laser Chip Package
- Cost Effective Fiber Coupled Design
- High Output Power
- High Dynamic Range
- High Efficiency
- High Heat Load Package
- Red Aiming Beam Included

Application

- Medical
- DPSS Pump Source
- Defense / Aerospace



SemiNex delivers the highest available power at infrared wavelengths between 12xx and 19xx nm. When necessary, we will further optimize the design of our InP & GaSb laser chips to meet our customers' specific optical and electrical performance needs. Diodes, bars and packages are tested to meet customer and market performance demands. Typical results and packaging options are shown. Contact SemiNex for additional details or to discuss your specific requirements.

High Power Laser Diode 2CM Fiber Module



Specification

2CM-004-189

Optical	Symbol	Typ.	Units
Center Wavelength	λ_c	1550	nm (± 20)
Output Power (CW)*	P_{out}	5.0	Watts ($\pm 10\%$)
Spectral Width FWHM	$\Delta\lambda$	10	nm
Slope Efficiency	η	0.52	W/A
Optical Fiber Core Dia.		105	μm
Optical Fiber NA		0.22	
Electrical	Symbol		Units
Power Conversion Eff.	η	16	%
Operating Current	I_{op}	10.5	A
Threshold Current	I_{TH}	0.5	A
Operating Voltage	V_{op}	3.2	V
Aiming Beam	Symbol		Units
Output Power	P_a	10	mW
Wavelength	λ_a	635	nm
Operating Current	I_{op}	65	mA
Voltage Limit	V_{max}	2.3	V
Mechanical			Units
Connector Type		SMA905	
Fiber Length		1	meters
Thermistor Constant		3477	β
Thermistor Resistance		10	K ohm
		Range	
Operating Temp.**		-40 to 60	$^{\circ}C$
Storage Temp.		-40 to 80	$^{\circ}C$

*Specified values are rated at a constant heat sink temperature of 20 $^{\circ}C$.

**High temperature operation will reduce performance and MTTF.
Unless otherwise indicated all values are nominal.

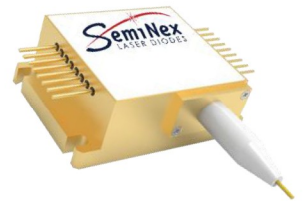
Suffix	Description
-189	10mW Red Aiming Beam Option

High Power Laser Diode 2CM Fiber Module

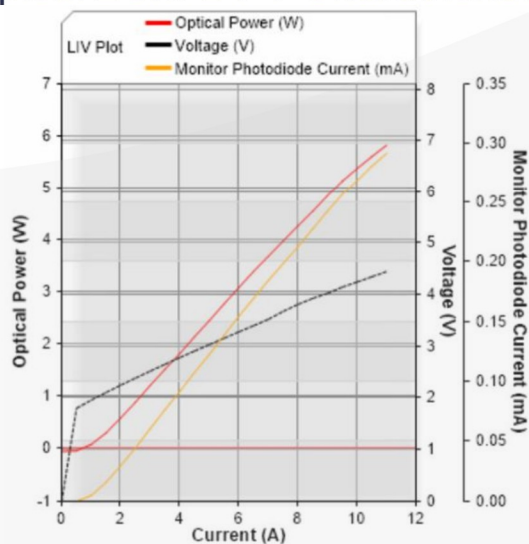


SemiNex Laser Diodes 2CM-004

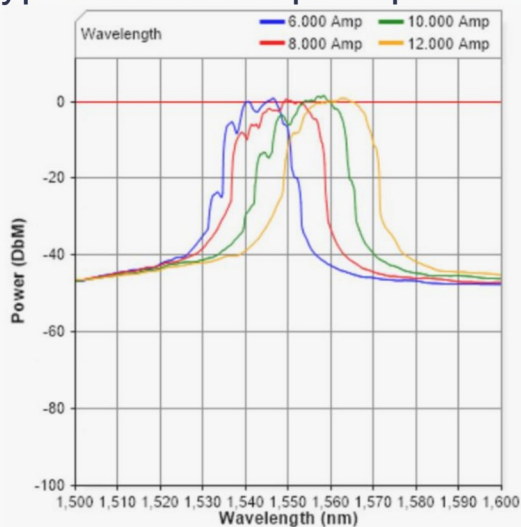
Graphs & Data



Typical 2CM L-I-V Characteristics



Typical 2CM Output Spectrum



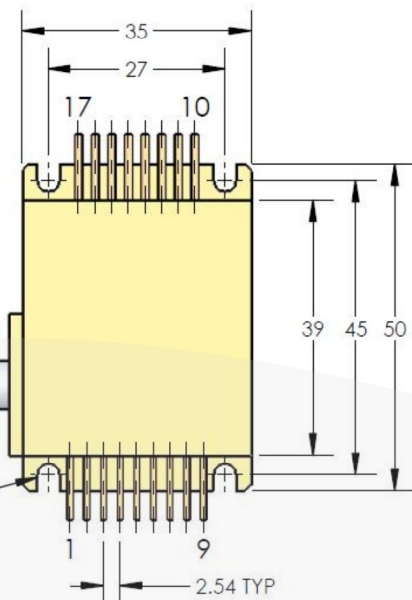
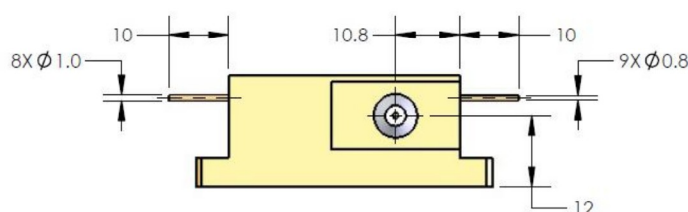
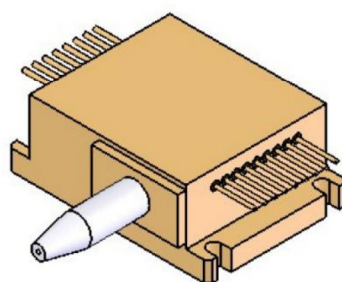
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High Power Laser Diode 2CM Fiber Module



2CM with attached fiber Mechanical Drawing

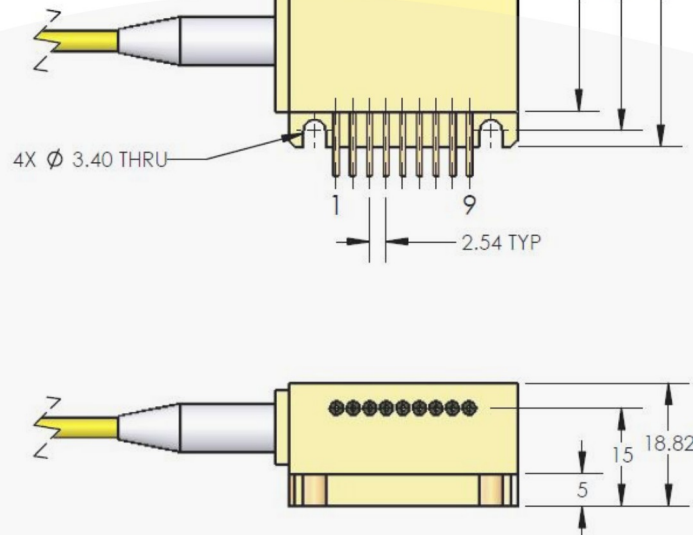
Unless otherwise specified, dimensions are in mm



PIN OUT:

A. SMA-905 INPUT

1. N/C
2. N/C
3. N/C
4. N/C
5. N/C
6. PD (+)
7. PD (-)
8. THERMISTOR
9. THERMISTOR
10. LD ANODE (+)
11. LD CATHODE (-)
12. N/C
13. N/C
14. N/C
15. N/C
16. AIMING BEAM (+)
17. AIMING BEAM (-)



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