



2CM — 2 Chip Laser Module

High Power Multi-Mode SemiNex Lasers
Up to 8 watts CW Power
1470 nm
Custom Wavelengths Available
Fiber Coupled

Features

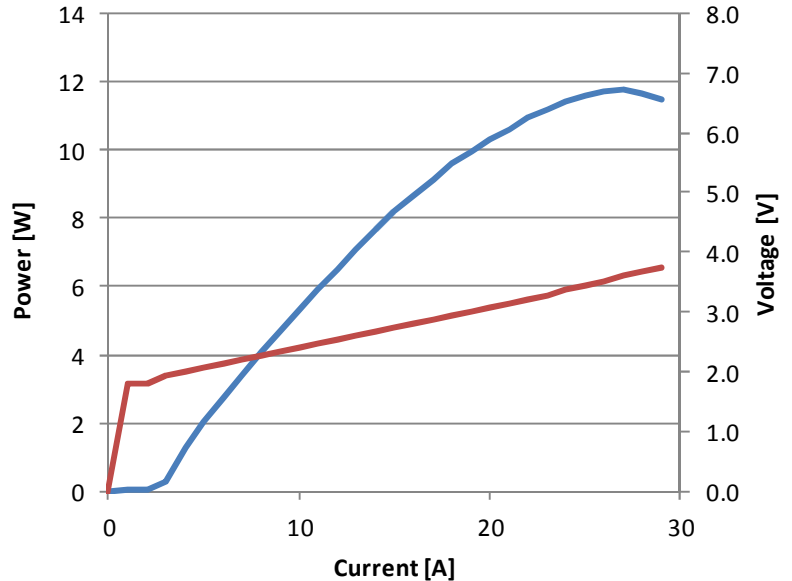
- High output power
- High dynamic power range
- High efficiency
- Standard Low Cost Package

Applications

- Medical laser equipment
- DPSS pump lasers
- Military / Aerospace

SemiNex delivers the highest available power at infrared wavelengths between 13xx and 17xx nm. When necessary we will further optimize the design of our InP 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

SemiNex 2CM Module



Preliminary



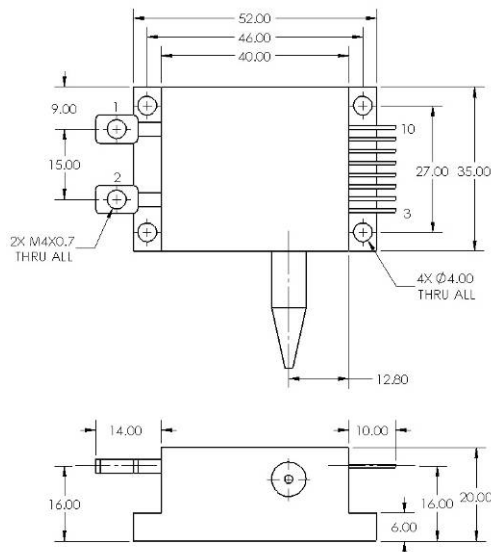
2CM



Preliminary

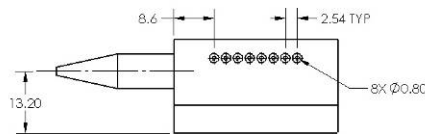
	Symbol	2CM-105	2CM-103	2CM-101	2CM-104	2CM-102	Units
Optical							
Center Wavelength	λ_c	1470	1490	1490	1560	1570	nm (± 20)
Output power (CW)	P_o	8.0	6.5	8.0	5.8	7.7	watts
Spectral Width	$\Delta\lambda$	10	10	10	30	10	nm 3dB
Slope Efficiency	η_o	0.46	0.45	0.46	0.35	0.45	W/A
Temperature Coefficient	$\Delta\lambda/\Delta T$	0.55	0.55	0.55	0.55	0.55	nm/C
Optical Fiber Core Dia.		200	105	200	105	200	μm
Optical Fiber Clad		220	125	220	125	220	μm
Optical Fiber NA		0.22	0.22	0.22	0.22	0.22	
Fiber Length				1.0			m
Connector				SMA 905			
Electrical							
Power conversion Eff.	η	20	18	20	15	19	%
Threshold Current	I_{th}	1.0	0.5	1.0	0.5	1.0	A
Operating Current	I_{op}	13.5	12.0	13.5	12.0	12.0	A
Operating Voltage	V_{op}	2.9	3.1	2.9	3.1	3.0	V
Series Resistance	R_s	0.1	0.1	0.1	0.1	0.1	ohm
Aiming Beam							
Output Power	P_a			<2			mW
Wavelength	λ_a			635 +/- 10			nm
Operating Voltage	V_{op}			5			V
Current Limit	I_{max}			50			mA
Thermistor							
Nominal resistance	@25C			10			kOhms
Material Constant				3477 +/- 3%	@ -25C / +75C		
Mechanical							
Weight				170			g
Operating Temp.				10 to 40			$^{\circ}C$
Storage Temp.				-20 to 80			$^{\circ}C$
Lead Soldering Temp.				250			$^{\circ}C$

Specified values are rated at a constant heat sink temperature of 20°C



PIN OUT: (FOR REFERENCE ONLY, REFER TO DOCUMENTATION SUBMITTED WITH PRODUCT FOR ACTUAL PIN OUT)

1. LD CATHODE (-)
2. LD ANODE (+)
3. NONE
4. NONE
5. AIMING BEAM LD (+)
6. AIMING BEAM LD (-)
7. PD (-)
8. PD (+)
9. THERMISTOR
10. THERMISTOR



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