



CS Bar Package

High Power Multi-Mode Lasers
25 Watts of CW Power
1315, 1350, 1470, 1532, 1550 nm

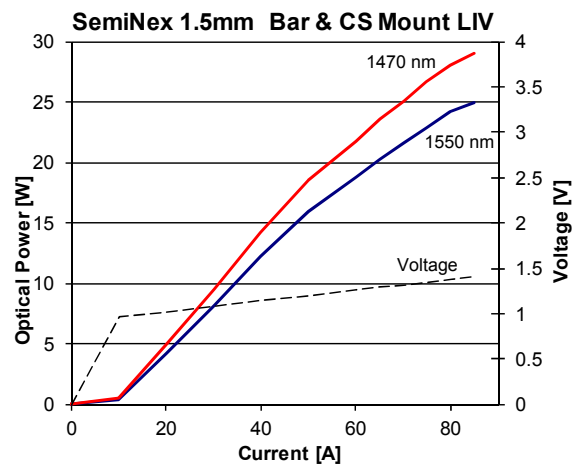
Features

- High output power
- High dynamic power range
- High efficiency

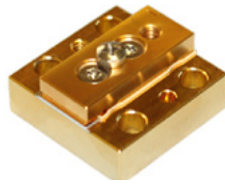
Applications

- Medical laser equipment
- LIDAR
- Free Space Optical Communication
- 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



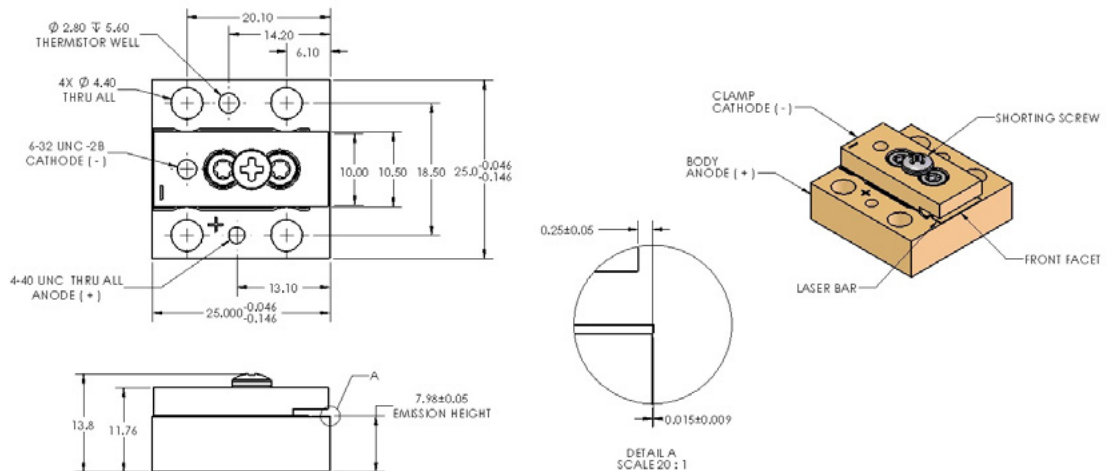
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CS Bar Package

	Symbol	CS-113	CS-110	CS-101	CS-102	CS-111	CS-112	CS-106	CS-108	CS-107	CS-114	Units
Optical												
Wavelength	λ_c	1315	1350	1470	1470	1525	1532	1540	1550	1550	1680	nm (± 20)
Optical Power	P_o	25	25	20	25	25	20	20	20	25	12	W
Chip Cavity Length		1500	1500	1500	2500	2500	1500	2500	1500	2500	1500	μm
Emitter Width	W	95	95	95	95	95	95	95	95	95	95	μm
Emitter Height	H	1	1	1	1	1	1	1	1	1	1	μm
Number of emitters		19	19	19	19	19	19	19	19	19	19	
Spectral Width	$\Delta\lambda$	15	15	15	15	15	15	15	15	15	15	nm 3dB
Slope Efficiency	η_o	0.50	0.50	0.40	0.31	0.30	0.30	0.30	0.30	0.27	0.25	W/A
Fast Axis Div.	θ_{perp}	25	25	25	25	25	25	25	25	25	25	deg FWHM
Slow Axis Div.	θ_{parallel}	8	8	8	8	8	8	8	8	8	8	deg FWHM
Electrical												
Power conversion Eff.	η	0.36	0.36	0.30	0.25	0.25	0.25	0.23	0.25	0.23	0.25	
Threshold Current	I_{th}	9	9	10	12	12	10	12	10	12	10	A
Operating Current	I_{op}	50	50	60	100	100	65	100	65	100	65	A
Operating Voltage	V_{op}	1.3	1.3	1.3	1.1	1.1	1.3	1.1	1.3	1.1	1.3	V
Series Resistance	R_s	7	7	6	4	4	6	4	6	4	6	mOhm
Mechanical												
Weight		44.0	44.0	44.0	44.0	44.0	44.0	44.0	44.0	44.0	44.0	g
Operating Temp.		10 to 30	10 to 30	10 to 30	10 to 30	10 to 30	10 to 30	10 to 30	10 to 30	10 to 30	10 to 30	$^{\circ}\text{C}$
Storage Temp.		-20 to 80	-20 to 80	-20 to 80	-20 to 80	-20 to 80	-20 to 80	-20 to 80	-20 to 80	-20 to 80	-20 to 80	$^{\circ}\text{C}$

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



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