



## CS Bar Package

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

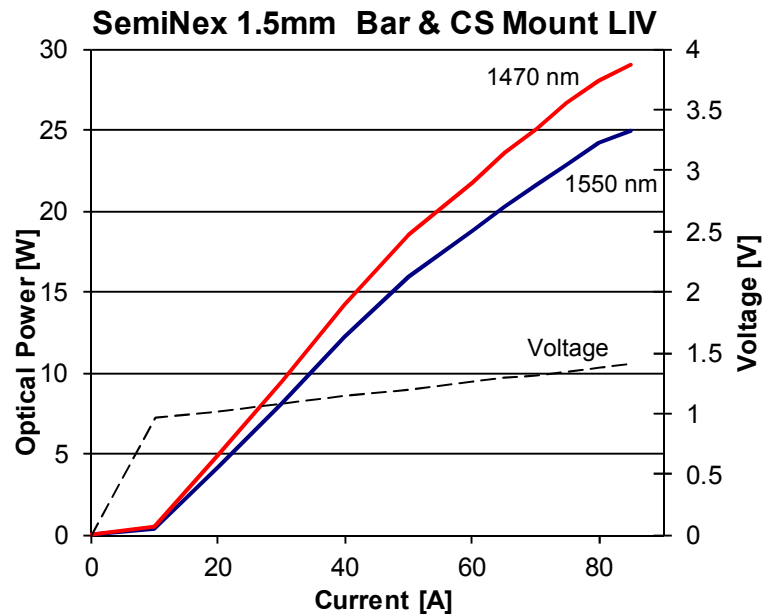
### Features

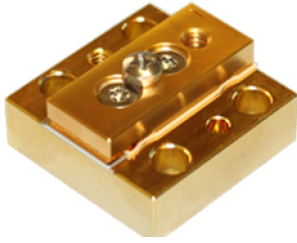
- High output power
- High dynamic power range
- High efficiency

### 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



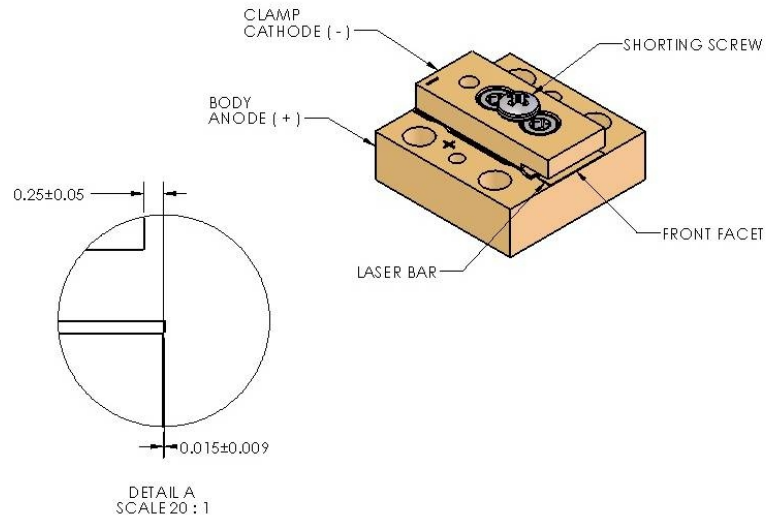
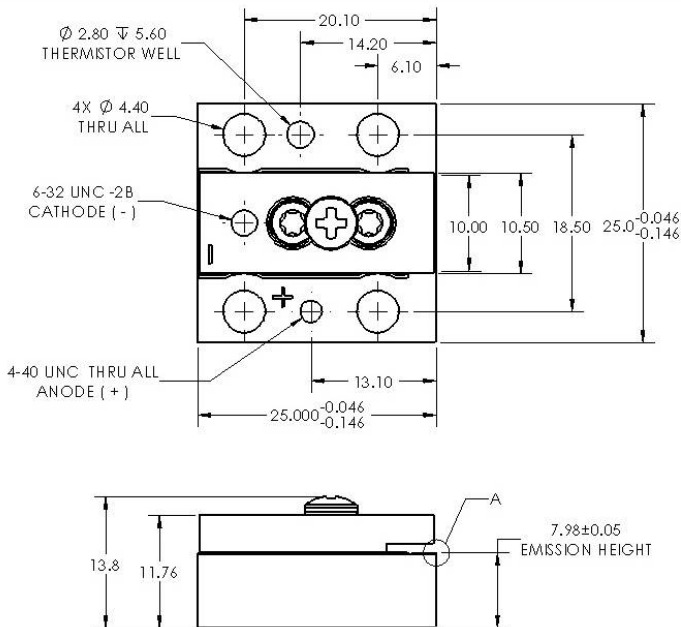


### CS Bar Package



	Symbol	CS-113	CS-110	CS-101	CS-102	CS-111	CS-112	CS-106	CS-108	CS-107	CS-114	Units	
<b>Optical</b>													
Wavelength	$\lambda_c$	1315	1350	1470	1470	1525	1532	1550	1550	1550	1680	nm ( $\pm 20$ )	
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	$\mu\text{m}$	
Emitter Width	W	95	95	95	95	95	95	95	95	95	95	$\mu\text{m}$	
Emitter Height	H	1	1	1	1	1	1	1	1	1	1	$\mu\text{m}$	
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	$\eta_o$	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.	$\theta_{\text{perp}}$	25	25	25	25	25	25	25	25	25	25	deg FWHM	
Slow Axis Div.	$\theta_{\text{parallel}}$	8	8	8	8	8	8	8	8	8	8	deg FWHM	
<b>Electrical</b>													
Power conversion Eff.	$\eta$	0.36	0.36	0.30	0.25	0.25	0.25	0.23	0.25	0.23	0.25		
Threshold Current	$I_{\text{th}}$	9	9	10	12	12	10	12	10	12	10	A	
Operating Current	$I_{\text{op}}$	50	50	60	100	100	65	100	65	100	65	A	
Operating Voltage	$V_{\text{op}}$	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	
<b>Mechanical</b>													
Weight												44.0	g
Operating Temp.												10 to 30	$^{\circ}\text{C}$
Storage Temp.												-20 to 80	$^{\circ}\text{C}$

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



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