

### B-Mount

High Power Single-Mode and Multi-Mode SemiNex Lasers  
 12xx to 19xx nm  
 Custom Wavelengths Available  
 Lensed Options Available

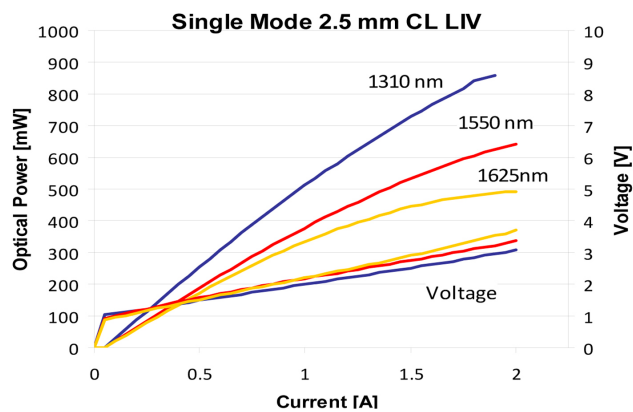
**Applications**

- OEM Medical
- DPSS pump source
- LiDAR
- Military / Aerospace

**Features**

- Cost effective
- High Output Power
- High Dynamic Range
- High Efficiency
- Standard Low Cost Package

SemiNex delivers the highest available power at infrared wavelengths between 12xxnm and 16xxnm as well 19xxnm to 24xxnm. When necessary we will further optimize the design of our InP or 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.





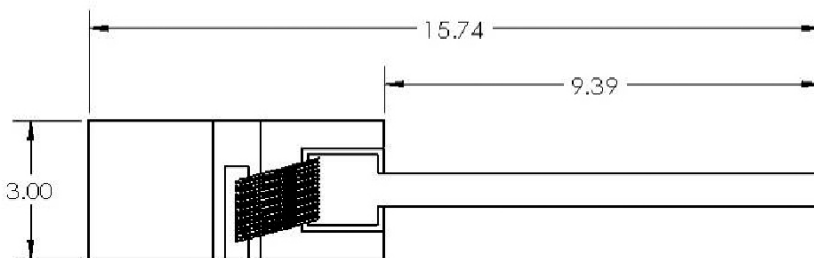
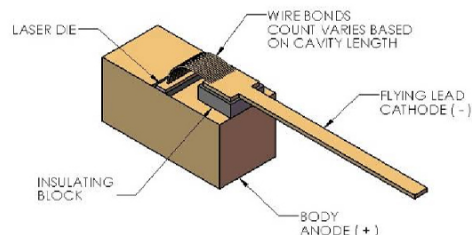
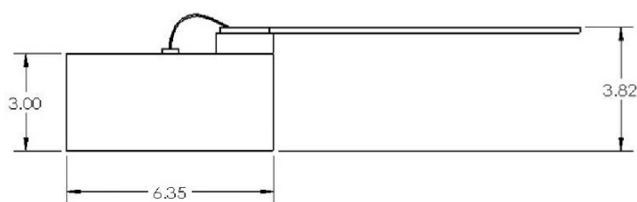


B-Mount



	Symbol	B-124	Units
<b>Optical</b>			
Wavelength	$\lambda_c$	1660	nm ( $\pm 20$ )
Output Power (CW)	P <sub>c</sub>	0.45	watts ( $\pm 10\%$ )
Chip Cavity Length	CL	2500	$\mu\text{m}$
Emitter Width	W	5	$\mu\text{m}$
Emitter Height	H	1	$\mu\text{m}$
Spectral Width	$\delta\lambda$	15	nm 3dB
Slope Efficiency	$\eta_s$	0.25	W/A
Fast Axis Div.*	$\Theta_{\text{perp}}$	30	deg FWHM
Slow Axis Div.	$\Theta_{\text{parallel}}$	10	deg FWHM
<b>Electrical</b>			
Power Conversion Eff.	$\eta$	14	%
Threshold Current	I <sub>th</sub>	0.05	A
Operating Current	I <sub>op</sub>	1.4	A
Operating Voltage	V <sub>op</sub>	2.2	V
<b>Mechanical</b>			
Weight		0.5	g
Operating Temp.**		-40 to 60	$^{\circ}\text{C}$
Storage Temp.		-40 to 80	$^{\circ}\text{C}$
Operating Voltage Min.		2.1	V
Operating Voltage Max.		2.2	V

Specified values are rated at a constant heat sink temperature of 20°C.  
 \*\*Specified operating conditions are based on 20C heat sink temperature. High temperature operation will reduce performance and MTTF.  
 Unless otherwise indicated all values are nominal.  
 \*Fast Axis Divergence can be changed with lens option.



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