

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

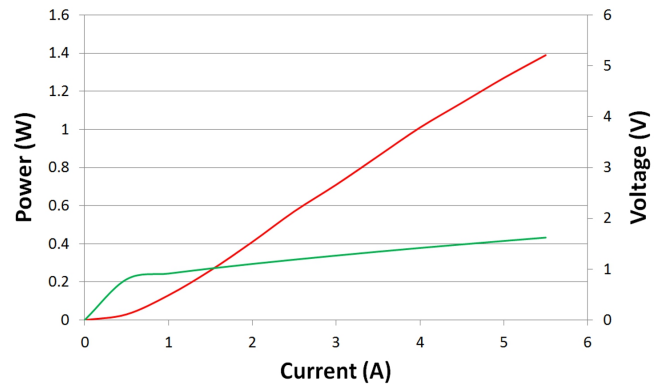
Features

- 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/C mount, 1940 nm, 1.5 mm LIV



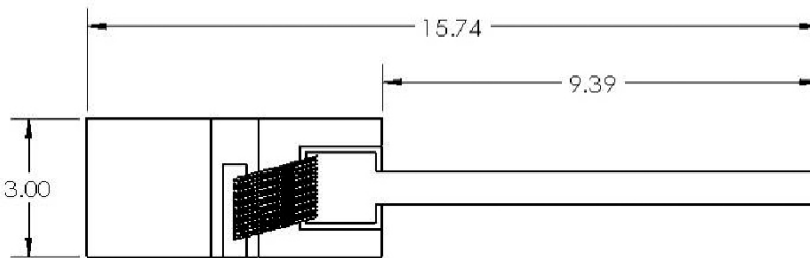
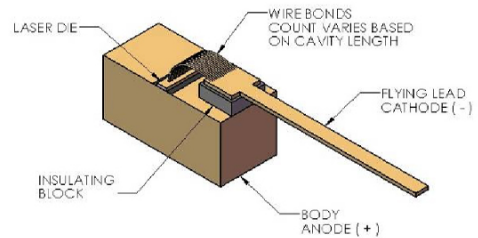
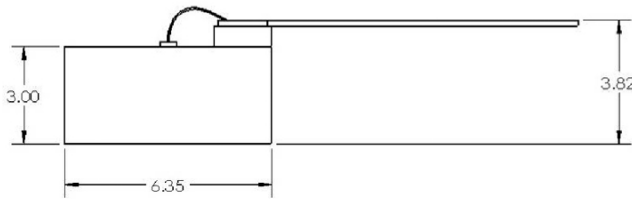


B-Mount



| | Symbol | B-165 | Units |
|------------------------|----------------------------|-----------|----------------------|
| Optical | | | |
| Wavelength | λ_c | 1940 | nm (± 20) |
| Output Power (CW) | P_o | 1.10 | watts ($\pm 10\%$) |
| Chip Cavity Length | CL | 1500 | μm |
| Emitter Width | W | 150 | μm |
| Emitter Height | H | 1 | μm |
| Spectral Width | $\delta\lambda$ | 10 | nm 3dB |
| Slope Efficiency | η_v | 0.30 | W/A |
| Fast Axis Div.* | Θ_{perp} | 2.8 | deg FWHM |
| Slow Axis Div. | Θ_{parallel} | 11 | deg FWHM |
| Electrical | | | |
| Power Conversion Eff. | η | 20 | % |
| Threshold Current | I_{th} | 0.35 | A |
| Operating Current | I_{op} | 4 | A |
| Operating Voltage | V_{op} | 1.3 | V |
| Mechanical | | | |
| Weight | | 0.5 | g |
| Operating Temp.** | | +15 to 35 | $^{\circ}\text{C}$ |
| Storage Temp. | | -40 to 80 | $^{\circ}\text{C}$ |
| Operating Voltage Min. | | 1 | V |
| Operating Voltage Max. | | 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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