

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.



Chip on Carrier

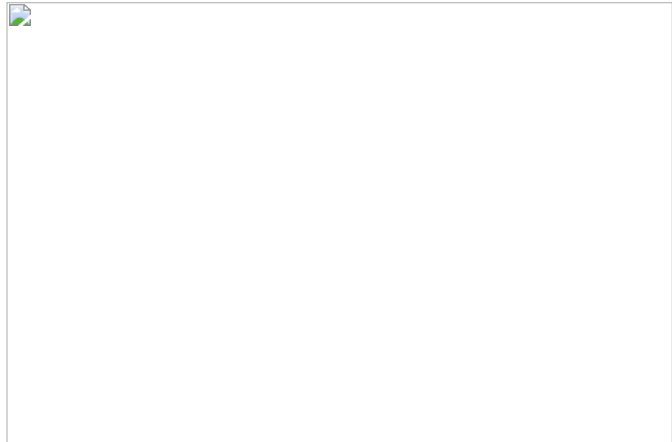
High Power SemiNex Lasers
12xx to 19xx nm
Custom Wavelengths Available

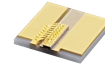
Applications

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

Features

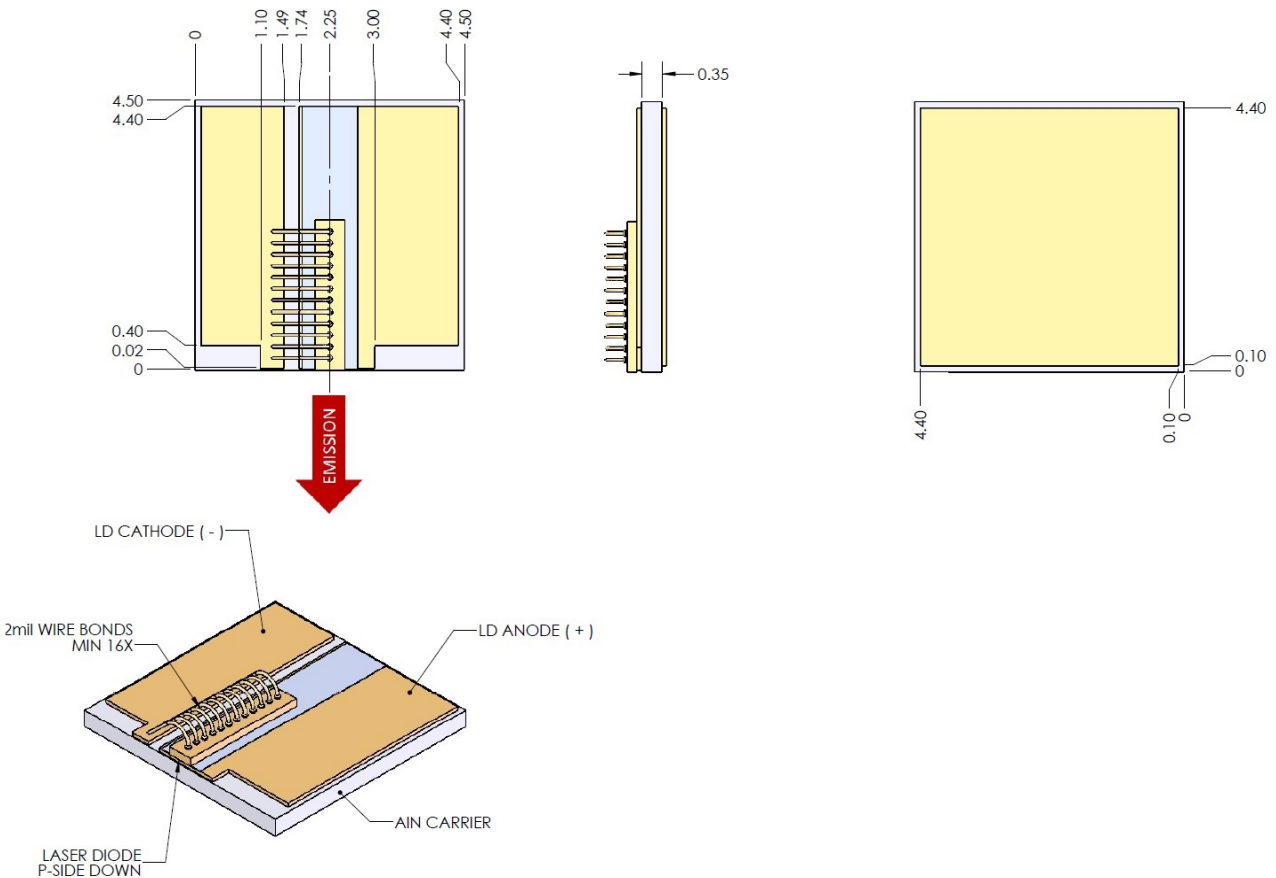
- Cost effective
- High Output Power
- High Dynamic Range
- High Efficiency
- Standard Low Cost Package





| | Symbol | COC-105 | Units |
|---------------------------|----------------------------|-----------|----------------------|
| Optical | | | |
| Wavelength | λ_c | 1550 | nm (± 20) |
| Output Power (<10ns) | P_s | 14.00 | watts ($\pm 10\%$) |
| Output Power (150ns) | P_r | 9.00 | watts ($\pm 10\%$) |
| Chip Cavity Length | CL | 2500 | μm |
| Emitter Width | W | 50 | μm |
| Emitter Height | H | 1 | μm |
| Spectral Width | $\delta\lambda$ | 15 | nm 3dB |
| Slope Efficiency | η_s | 0 | W/A |
| Fast Axis Div.* | Θ_{perp} | 28 | deg FWHM |
| Slow Axis Div. | Θ_{parallel} | 14 | deg FWHM |
| Electrical | | | |
| Power Conversion Eff. | η | 2.7 | % |
| Threshold Current | I_{th} | 0.5 | A |
| Operating Current (<10ns) | I_{op} | 70 | A |
| Operating Current (150ns) | I_{op} | 35 | A |
| Operating Voltage | V_{op} | 8.6 | V |
| Mechanical | | | |
| Weight | | 0.05 | g |
| Operating Temp.** | | -40 to 60 | $^{\circ}\text{C}$ |
| Storage Temp. | | -40 to 80 | $^{\circ}\text{C}$ |

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.



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