# High Power Mulit-Mode SemiNex Lasers
## 4* Watts of Continuous Operation Power
## 1300 nm to 1600 nm Wavelength
## 4-Pin Fiber-Coupled

| | Symbol | Typical | Units |
|---|---|---|---|
| **Optical** | | | |
| Output power (CW) | $P_o$ | 4 | watts |
| Center Wavelength Range | $\lambda_c$ | 1470 or 1550 | nm |
| Emitter Width | W | 95 | µm |
| Emitter Height | H | 1 | µm |
| Spectral Width | Δλ | 10 | nm 3dB |
| Slope Efficiency | $\eta_o$ | 0.5 | W/A |
| Fast Axis Divergence | θ_perp | 26 | deg FWHM |
| Slow Axis Divergence | θ_parallel | 8 | deg FWHM |
| Wavelength Temp. Coeff. | $\lambda_{coef}$ | 0.7 | nm/C |

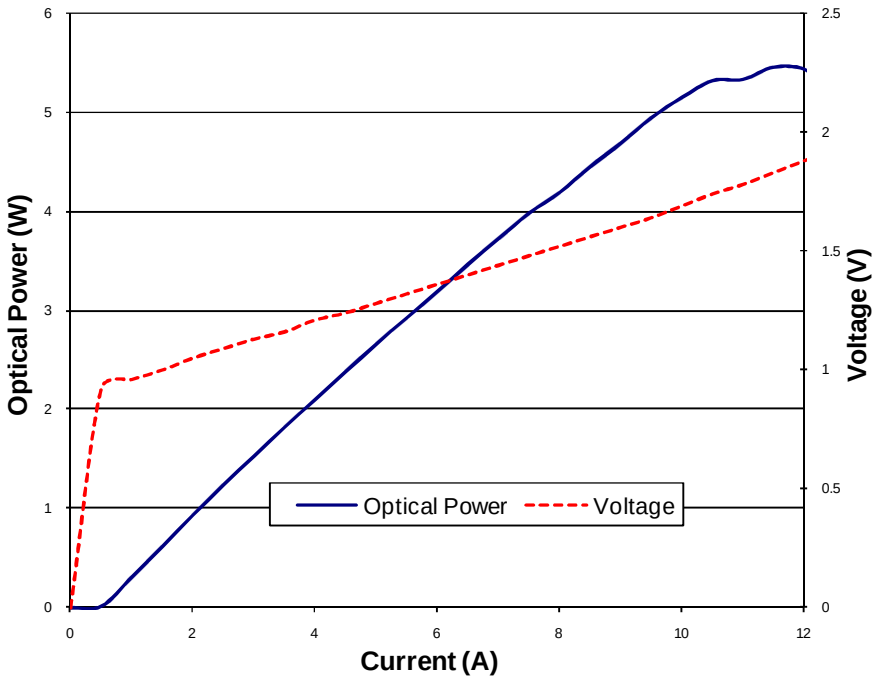
| | | | |
|---|---|---|---|
| **Electrical** | | | |
| Power conversion Efficiency | η | 0.5 | W/A |
| Threshold Current | $I_{th}$ | 0.45 | A |
| Operating Current | $I_{op}$ | 8 - 9 | A |
| Operating Voltage | $V_{op}$ | 1.5 - 2.0 | V |
| Series Resistance | $R_s$ | 0.05 | ohm |

SemiNex delivers the highest available CW power at infrared wavelengths. SemiNex will optimize the design of its laser chips to meet customers' optical and electrical performance specifications. Diodes are mounted and tested to meet custom applications. Typical results and packaging options are shown below. Contact SemiNex for additional details or to discuss your application.

Key Features
- High output power
- High dynamic power range
- High efficiency
- Custom packaging

Applications
- Medical laser equipment
- LIDAR
- Free Space Optical Communication
- DPSS pump lasers
- Military / Aerospace

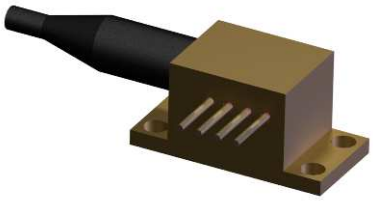
**Typical CW LIV Optical Power Chart**



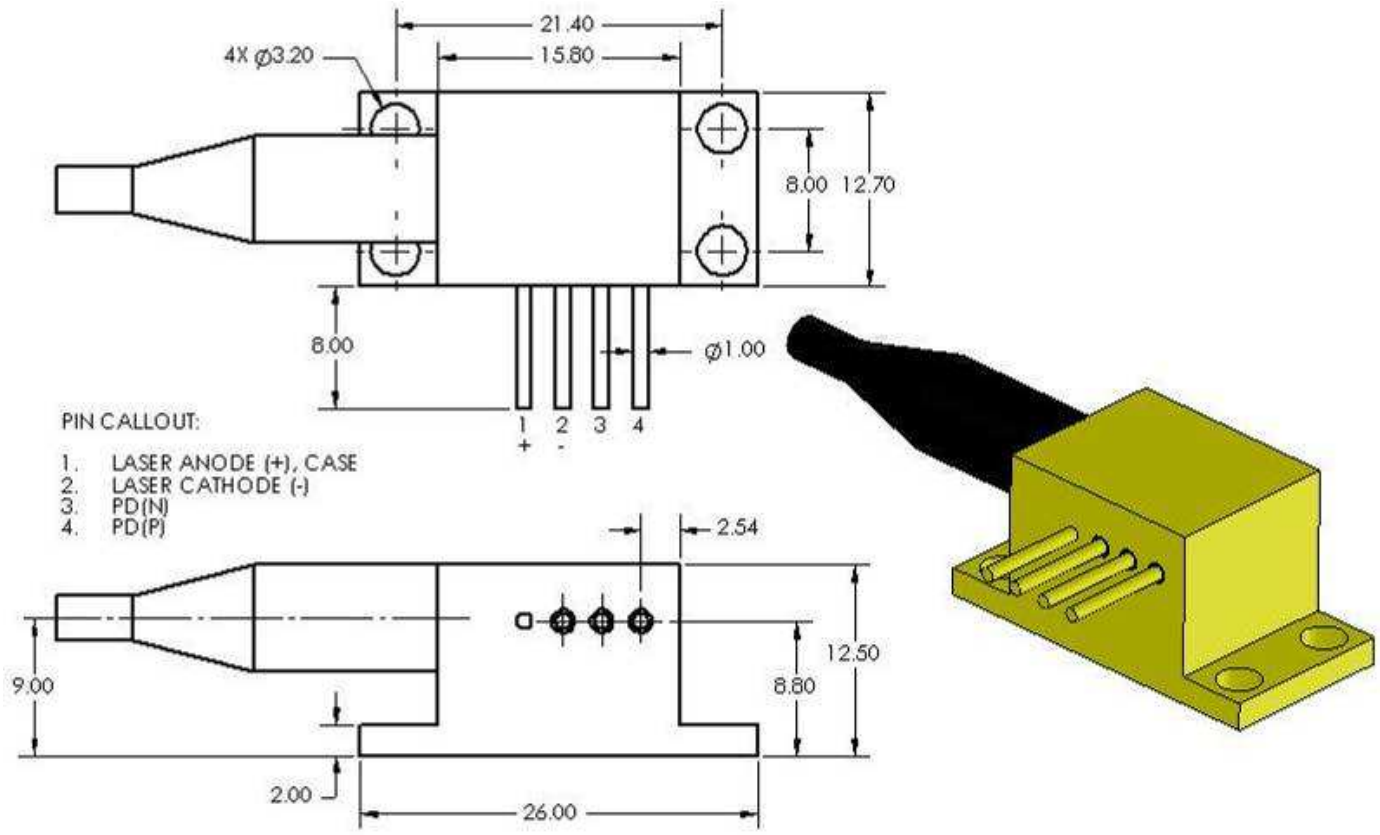

* 5 Watts of Continuous Operation Power available soon

**SemiNex Corporation**
100 Corporate Place
Suite 401
Peabody, MA 01960
Phone: 978-278-3550
Email: info@seminex.com
Web site: www.seminex.com





| | Symbol | 4PN-1470-6-95 | 4PN-1550-6-95 | 4PN-1532-6-95 | LE-808-6-95 | Units |
|---|---|---|---|---|---|---|
| **Optical** | | | | | | |
| Output power (CW) | $P_o$ | 4 | 3.8 | 4 | 3.8 | watts |
| Center Wavelength | $\lambda_c$ | 1470 | 1550 | 1532 | 808 | nm |
| Emitter Width | W | 95 | 95 | 95 | TBA | µm |
| Emitter Height | H | 1 | 1 | 1 | TBA | µm |
| Spectral Width | Δλ | 10 | 10 | 10 | TBA | nm 3dB |
| Slope Efficiency | $\eta_o$ | 0.5 | 0.5 | 0.5 | TBA | W/A |
| Optical Fiber Core Diameter | | 105 | 105 | 105 | TBA | µm |
| Optical Fiber NA | | 0.22 | 0.22 | 0.22 | TBA | |
| **Electrical** | | | | | | |
| Power conversion Efficiency | η | 0.5 | 0.5 | 0.5 | TBA | W/A |
| Threshold Current | $I_{th}$ | 0.45 | 0.45 | 0.45 | TBA | A |
| Operating Current | $I_{op}$ | 9 | 9 | 9 | TBA | A |
| Operating Voltage | $V_{op}$ | 1.8 | 1.8 | 1.8 | TBA | V |
| Series Resistance | $R_s$ | 0.05 | 0.05 | 0.05 | TBA | ohm |
| Lead Soldering Temperature | ℃ | 250 | 250 | 250 | TBA | ℃ |




NOTE: Dimensions are in mm [in]

**SemiNex Corporation**
100 Corporate Place
Suite 401
Peabody, MA 01960
Phone: 978-278-3550
Email: info@seminex.com
Web site: www.seminex.com