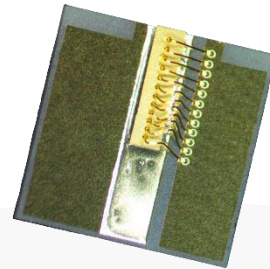


High Power SOA Array Chip on Carrier



Part Number: COC-177

High Power 4-Channel SOA Chip on Carrier
Single-Mode SOA Array
CW Wavelength at 1550nm



Features

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

Application

- Optical Communications
- LiDAR
- Free Space Communications
- Network Test Equipment



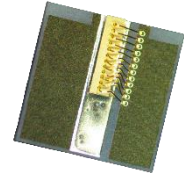
SemiNex delivers the highest available power at infrared wavelengths between 12xx and 19xx nm. When necessary, we will further optimize the design of our InP & GaSb laser chips to meet our customers' specific optical and electrical performance needs. Diodes, bars and packages are tested to meet customer and market performance demands. Typical results and packaging options are shown. Contact SemiNex for additional details or to discuss your specific requirements.

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Specification

COC-177



| Optical | Symbol | Typ. | Units |
|-------------------------------|----------------------|-----------|-------------------|
| Center Wavelength | λ_c | 1550 | nm |
| Output Power @1A per channel* | P_{out} | 0.35 | Watts |
| Aperture Width | AW | 4 | μm |
| Aperture Height | AH | 1 | μm |
| Number of Emitters | | 4 | 127 μm pitch |
| 3dB Bandwidth | BW | 80 | nm |
| Gain @ Pin = 10 μW | G | 35 | dB |
| Beam Exit Angle | θ_{EXT} | 19.5 | degree |
| Noise Figure | NF | 7 | dB |
| Polarization Extinction Ratio | PER | 18 | dB |
| Fast Axis Div. | θ_{\perp} | 30 | deg FWHM |
| Slow Axis Div. | θ_{\parallel} | 16 | deg FWHM |
| Front Facet Reflectivity | | <0.1% | |
| Rear Face Reflectivity | | <0.1% | |
| Waveguide | | Curved | |
| Electrical | Symbol | | Units |
| Operating Current per channel | I_{op} | 1 | A |
| Operating Voltage | V_{op} | 2 | V |
| Mechanical | | Range | Units |
| Chip Width | | 625 | μm |
| Operating Temp.** | | -20 to 75 | $^{\circ}C$ |
| Storage Temp. | | -40 to 85 | $^{\circ}C$ |

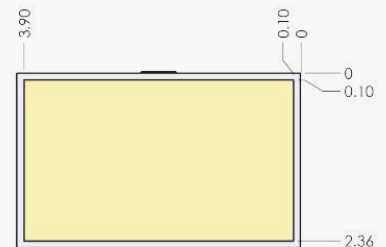
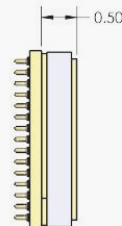
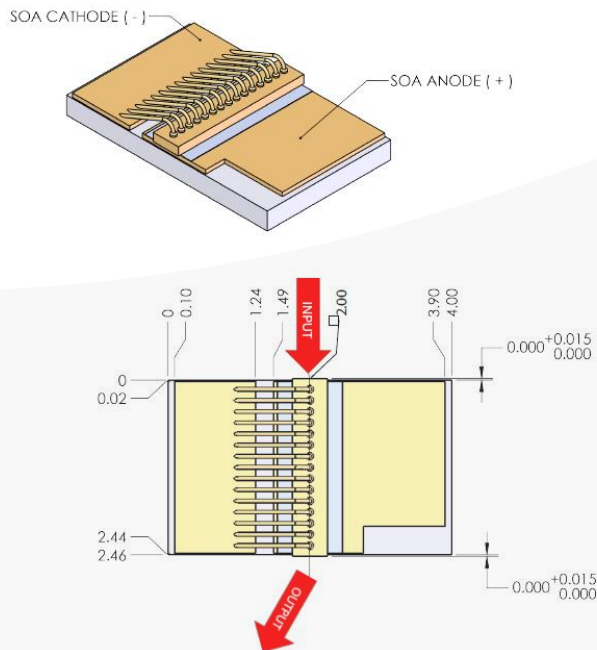
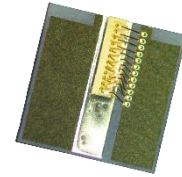
*Specified values are per channel and rated at a constant heat sink temperature of 20 $^{\circ}C$.

**High temperature operation will reduce performance and MTTF.
Unless otherwise indicated all values are nominal.

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Mechanical Drawing



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