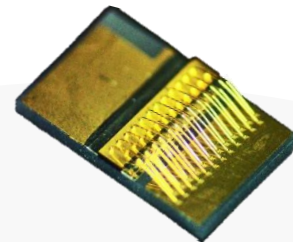


High Power SOA Chip on Carrier



Part Number: COC-287

High Power SOA Chip on Carrier
Single-Mode SOA
Wavelength at 1550nm



Features

- High Output Power
- Broad Gain Bandwidth
- High Dynamic Range
- High Efficiency
- Standard SOA Chip on Carrier
- Cost Effective

Application

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



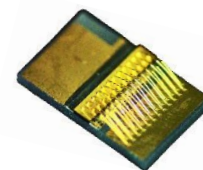
SemiNex delivers the highest available power at infrared wavelengths between 12xx and 19xx nm. When necessary, we will further optimize the design of our InP & GaSb laser chips to meet our customers' specific optical and electrical performance needs. Diodes, bars and packages are tested to meet customer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

High Power SOA Chip on Carriers



Specification

COC-287



Optical	Symbol	Typ.	Units
Center Wavelength	λ_c	1550	nm
Output Power @1A*	P_{out}	0.375	watts
Aperture Width	AW	4	μm
Aperture Height	AH	1	μm
3dB Bandwidth	BW	80	nm
Gain @ Pin = 10 μW	G	32	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}	20	deg FWHM
Front Facet Reflectivity		<0.1%	
Rear Face Reflectivity		<0.1%	
Waveguide		Tilted Straight	
Electrical	Symbol		Units
Operating Current	I_{op}	1	A
Operating Voltage	V_{op}	2	V
Mechanical		Range	Units
Chip Width		500	μm
Operating Temp.**		-20 to 75	$^{\circ}\text{C}$
Storage Temp.		-40 to 85	$^{\circ}\text{C}$

*Optical Power for 1310nm COC-288 and COC-290 with SOA drive current @ 1A and estimated Pin @ 10mW

*Optical Power for 1550nm COC-285 and COC-287 with SOA drive current @ 1A and estimated Pin @ 21mW

* Optical output power depends on the seed laser power, coupling efficiency, and thermal management.

*Specified values are rated at a constant heat sink temperature of 20°C.

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

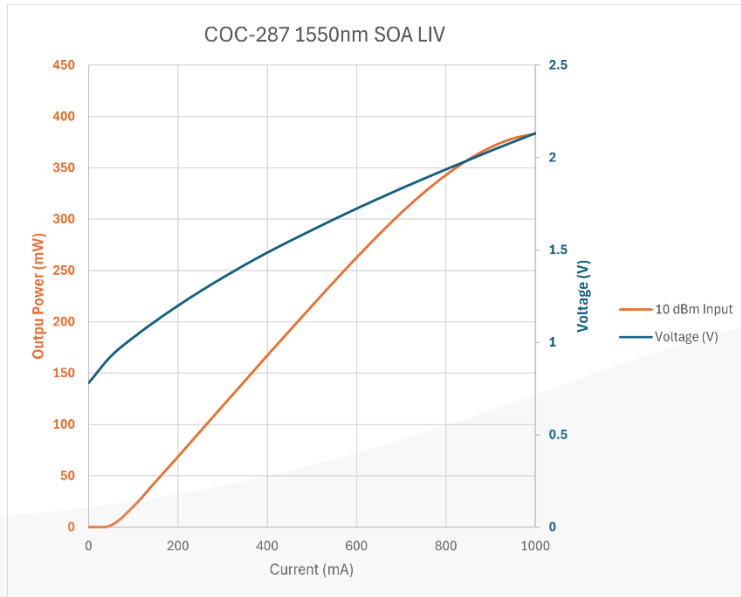
High Power SOA Chip on Carriers



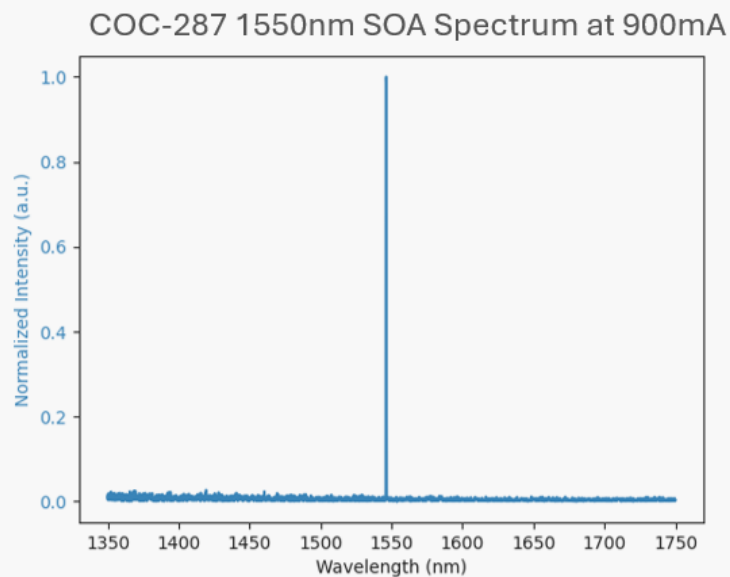
SemiNex SOA COC-287

Graphs & Data

Typical COC L-I-V Characteristics



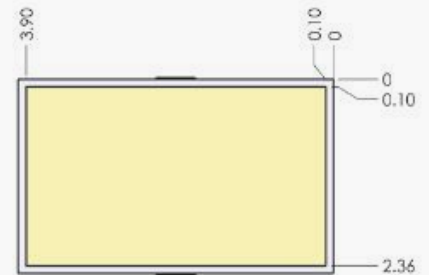
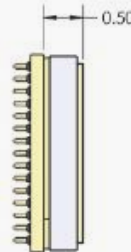
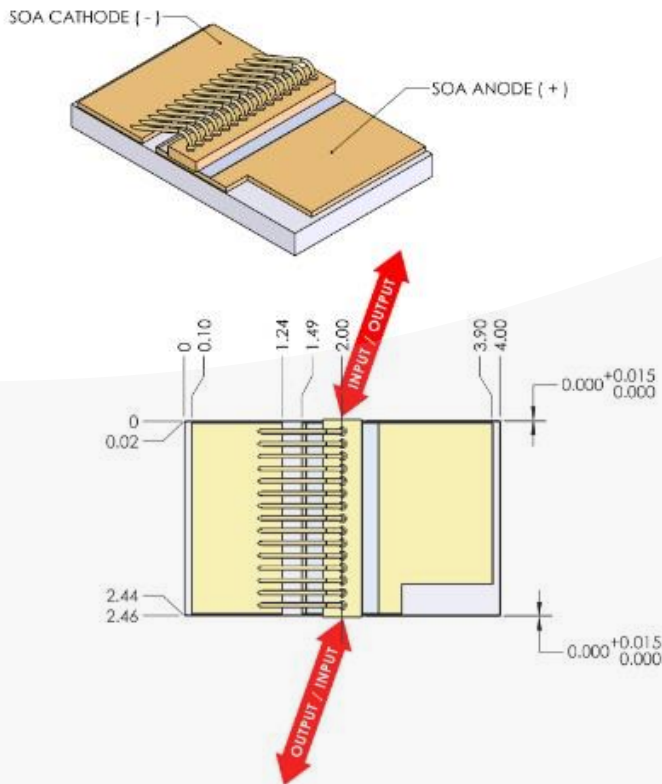
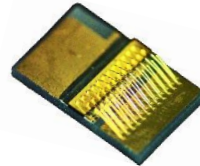
Typical COC Output Spectrum



High Power SOA Chip on Carriers



Mechanical Drawing



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