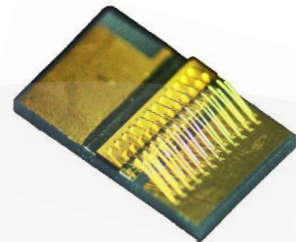


# High Power SOA Chip on Carrier



## 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



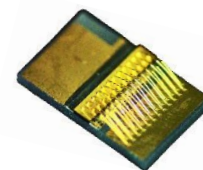
SemiNex delivers the highest available power at infrared wavelengths between 12xx and 19xx nm. When necessary, we will further optimize the design of our InP laser chips to meet our customers' specific optical and electrical performance needs. Diodes, bars and packages are tested to meet customer and 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	$\lambda_c$	1550	nm
Output Power @1A*	$P_{out}$	0.375	Watts
Aperture Width	AW	4	$\mu\text{m}$
Aperture Height	AH	1	$\mu\text{m}$
3dB Bandwidth	BW	80	nm
Gain @ Pin = 10 $\mu\text{W}$	G	25	dB
Beam Exit Angle	$\theta_{EXT}$	19.5	Degree
Noise Figure	NF	7	dB
Polarization Extinction Ratio	PER	18	dB
Fast Axis Div.	$\theta_{\perp}$	30	Deg FWHM
Slow Axis Div.	$\theta_{\parallel}$	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	Symbol	Range	Units
Chip Width		500	$\mu\text{m}$
Operating Temp.**	$^{\circ}\text{C}$	-20 to 75	$^{\circ}\text{C}$
Storage Temp.	$^{\circ}\text{C}$	-40 to 85	$^{\circ}\text{C}$

\*Optical Power for 1310nm COC-288 and COC-290 with SOA drive current @ 1A and estimated Pin @ 7mW

\*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.

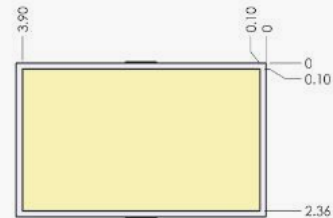
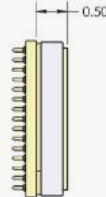
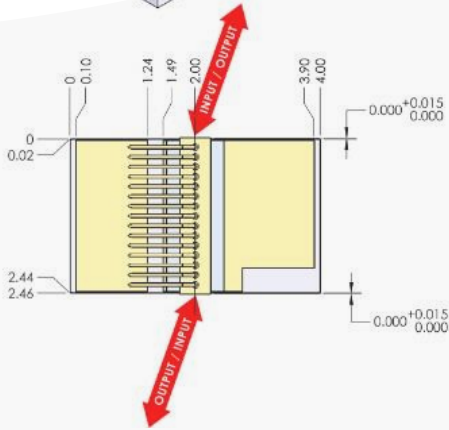
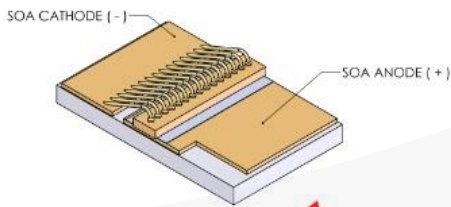
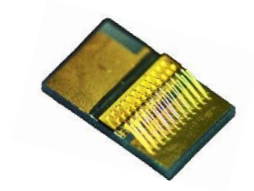
\*Specified values are rated at a constant heat sink temperature of 20°C.

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

# High Power SOA Chip on Carriers



## Mechanical Drawing



All statements, technical information and recommendations related to the product herein are based upon information believed to be reliable or accurate. The accuracy or completeness herein is not guaranteed, and no responsibility is assumed for any inaccuracies. The user assumes all risks and liability whatsoever in connection with the use of a product or its application. SemiNex Corporation reserves the right to change at any time without notice the design, specification, deduction, fit or form of its described herein, including withdrawal at any time of a product offered for sale herein. Users are encouraged to visit [www.seminex.com](http://www.seminex.com) for the latest data. SemiNex Corporation makes no representations that the products herein are free from any intellectual property claims of others. Please contact SemiNex for more information. 2024 SemiNex Corporation

