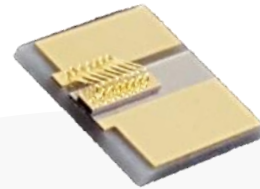


High Power Laser Diode Chip on Carrier



Part Number: COC-267

High Power Triple Junction Chip on Carriers
Multi-Mode Fabry-Perot
Pulsed Wavelength at 1550nm



Features

- High Output Power
- High Dynamic Range
- High Efficiency
- Standard Chip on Carrier
- Cost Effective

Application

- ToF LiDAR for Automotive and Drones
- Laser Rangefinders
- Target Illumination
- Aerospace



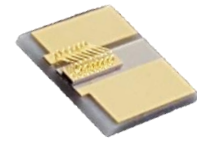
SemiNex delivers the highest available power at infrared wavelengths between 12xx and 19xx nm. When necessary, we will further optimize the design of our InP & GaSb laser chips to meet our customers' specific optical and electrical performance needs. Diodes, bars and packages are tested to meet customer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

High Power Laser Diode Chip on Carrier



Specification

COC-267



Optical	Symbol	Typ.	Units
Center Wavelength	λ_c	1550	nm (± 20)
Output Power (<10ns)*	P_{out}	100	watts ($\pm 10\%$)
Output Power (150ns)*	P_{out}	75	watts ($\pm 10\%$)
Emitter Width	W	350	μm
Spectral Width FWHM	$\Delta\lambda$	22	nm
Slope Efficiency	η	1	W/A
Fast Axis Div.	θ_{\perp}	28	deg FWHM
Slow Axis Div.	θ_{\parallel}	12	deg FWHM
Electrical	Symbol		Units
Power Conversion Eff.	η	10	%
Operating Current (<10ns)	I_{op}	100	A
Operating Current (<150ns)	I_{op}	75	A
Threshold Current	I_{TH}	2	A
Operating Voltage	V_{op}	11	V
Duty Cycle	DC	0.1	%
Mechanical		Range	Units
Operating Temp.**		-40 to 85	$^{\circ}C$
Storage Temp.		-40 to 85	$^{\circ}C$

*Specified values are 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.

High Power Laser Diode Chip on Carrier

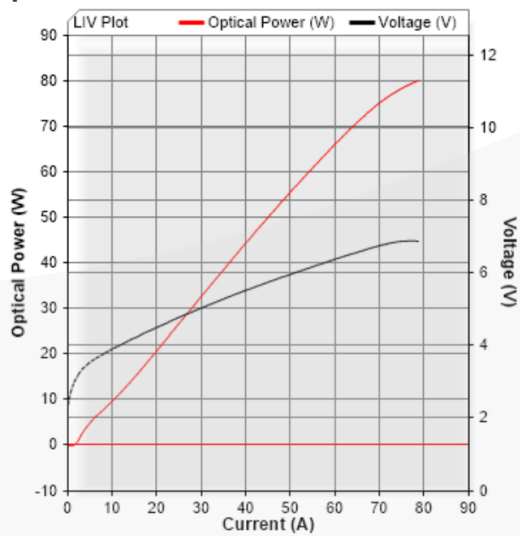


SemiNex Laser Diodes COC-267

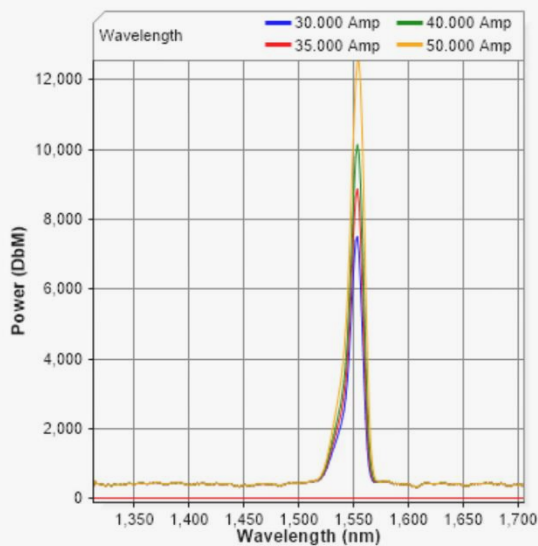
Graphs & Data



Typical COC L-I-V Characteristics



Typical COC Output Spectrum

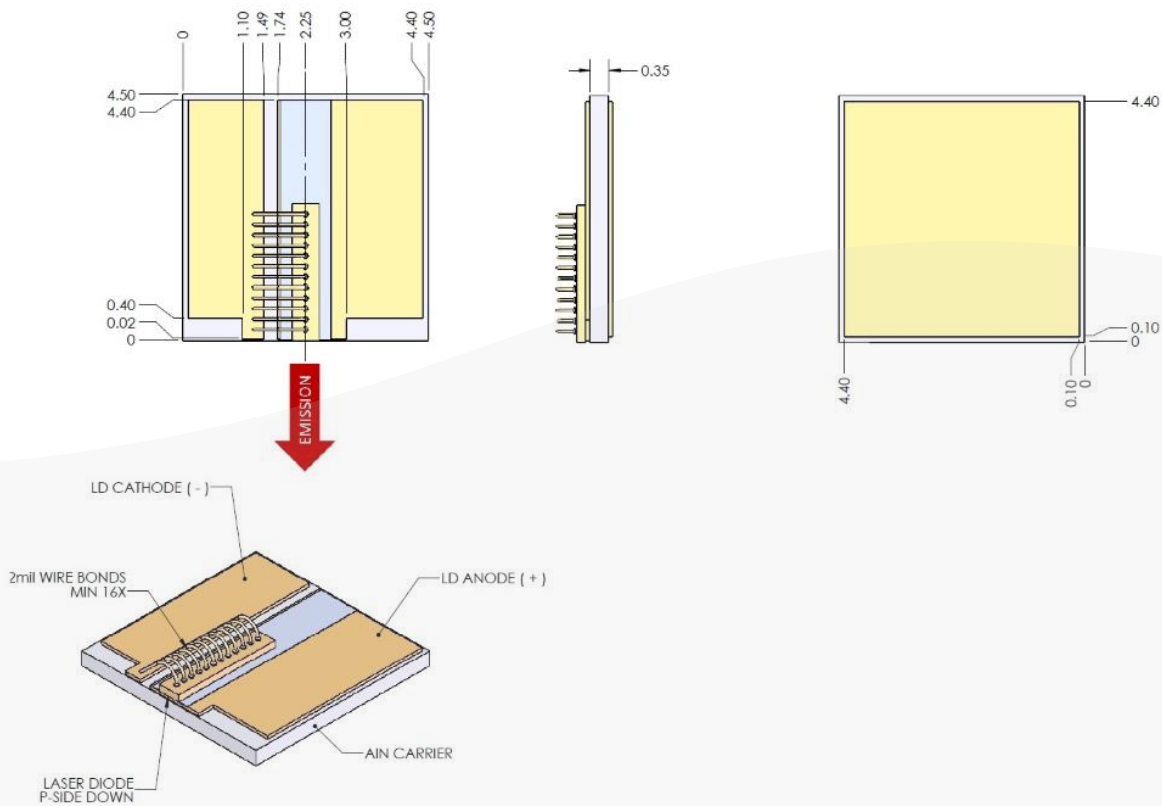
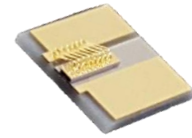


*Tested with 150nsec pulse @ 0.1% Duty Cycle

High Power Laser Diode Chip on Carrier



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 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

