

### COC 2.5mm PRELIMINARY

High Power SemiNex Lasers  
 12xx to 19xx nm  
 Custom Wavelengths Available

#### Applications

- OEM Medical
- Telecom/OTDR
- DPSS pump source
- LiDAR
- Military / Aerospace

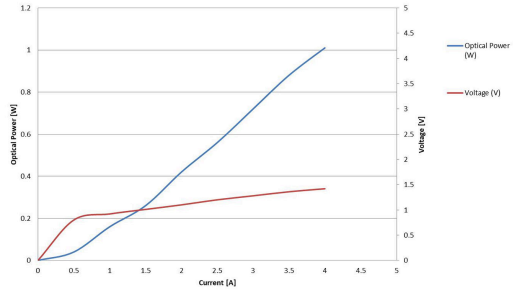
#### Features

- Cost effective
- High Output Power
- High Efficiency
- Standard Package

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.



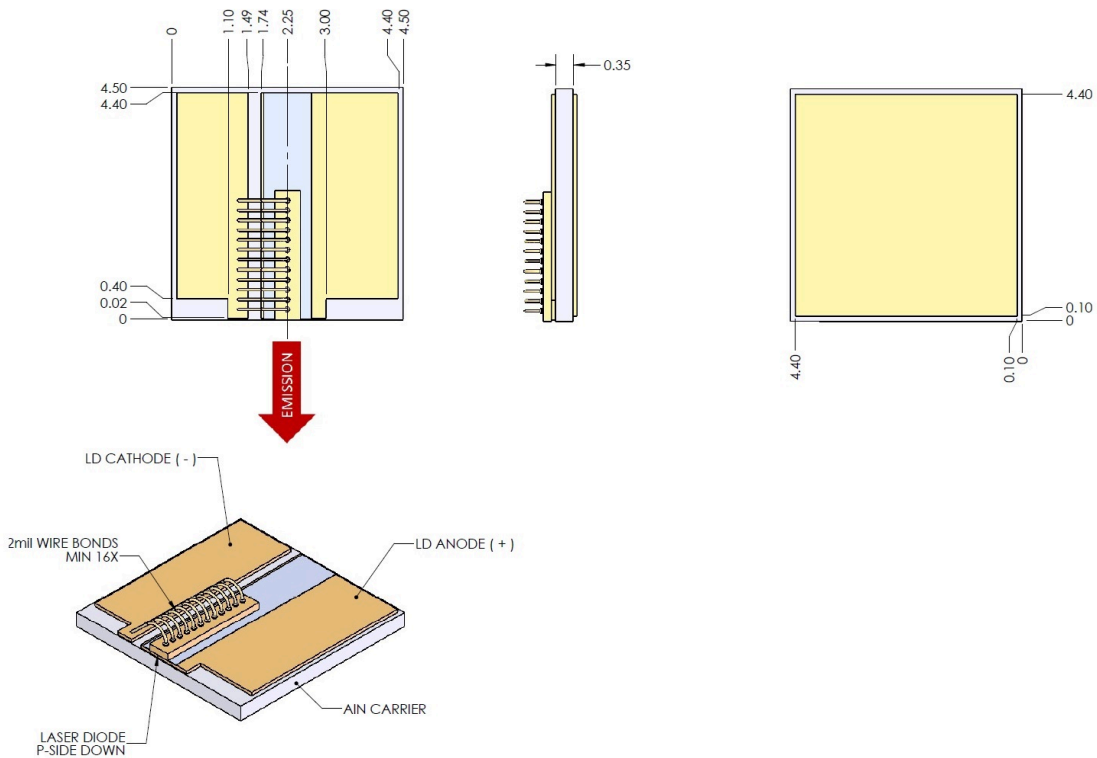
1940 nm: 1.5mm Cavity Length 150um Aperture





	Symbol	COC-271	Units
<b>Optical</b>			
Wavelength	$\lambda_c$	1940	nm ( $\pm 20$ )
Output Power (CW)	$P_o$	1.10	watts ( $\pm 10\%$ )
Chip Cavity Length	CL	1500	$\mu\text{m}$
Emitter Width	W	150	$\mu\text{m}$
Emitter Height	H	1	$\mu\text{m}$
Spectral Width	$\delta\lambda$	10	nm 3dB
Slope Efficiency	$\eta_s$	0.24	W/A
Fast Axis Div.*	$\Theta_{\text{perp}}$	44	deg FWHM
Slow Axis Div.	$\Theta_{\text{parallel}}$	11	deg FWHM
<b>Electrical</b>			
Power Conversion Eff.	$\eta$	22	%
Threshold Current	$I_{th}$	0.35	A
Operating Current (<10ns)	$I_{op}$	0	A
Operating Current (150ns)	$I_{op}$	4.5	A
Operating Voltage	$V_{op}$	1	V
<b>Mechanical</b>			
Weight		0	g
Operating Temp.**		15 to 30	$^{\circ}\text{C}$
Storage Temp.		-20 to 60	$^{\circ}\text{C}$

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.



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