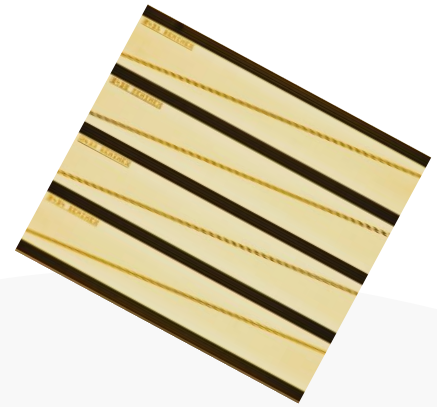


High Power SOA Mini Bar



Part Number: BARm-183

High Power 4 Emitters Bar
Single-Mode SOA
CW Wavelength at 1550nm



Features

- High Output Power
- High Dynamic Range
- High Efficiency
- 4 Emitters Mini Bar
- Cost Effective

Application

- FMCW LiDAR
- Datacom
- Data Centers
- Telecom OTDR
- Telecom Optical Comm



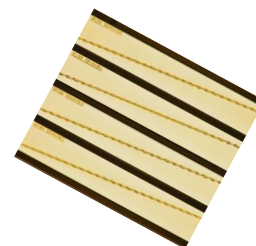
SemiNex delivers the highest available power at infrared wavelengths between 12xx and 19xx nm. When necessary, we will further optimize the design of our InP & GaSb laser chips to meet our customers' specific optical and electrical performance needs. Diodes, bars and packages are tested to meet customer 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 Mini Bar



Specification

BARm-183



Optical	Symbol	Typ.	Units
Center Wavelength	λ_c	1550	nm (± 20)
Output Power per emitter @1A*	P_{out}	350	watts ($\pm 10\%$)
Number of Emitters		4	
Emitter Width	W	4	μm
Spectral Width FWHM	$\Delta\lambda$	80	nm
Gain @ Pin=10 μ W	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 Facet Reflectivity		<0.1%	
Waveguide		Tilted Straight	
Waveguide Pitch		500	μm
Electrical	Symbol		Units
Operating Current per emitter	I_{op}	1	A
Operating Voltage	V_{op}	2	V
Mechanical			Units
Mini Bar Length		2500	μm
Mini Bar Width		2000	μm
Operating Temp.**		-20 to 75	$^{\circ}\text{C}$
Storage Temp.		-40 to 85	$^{\circ}\text{C}$

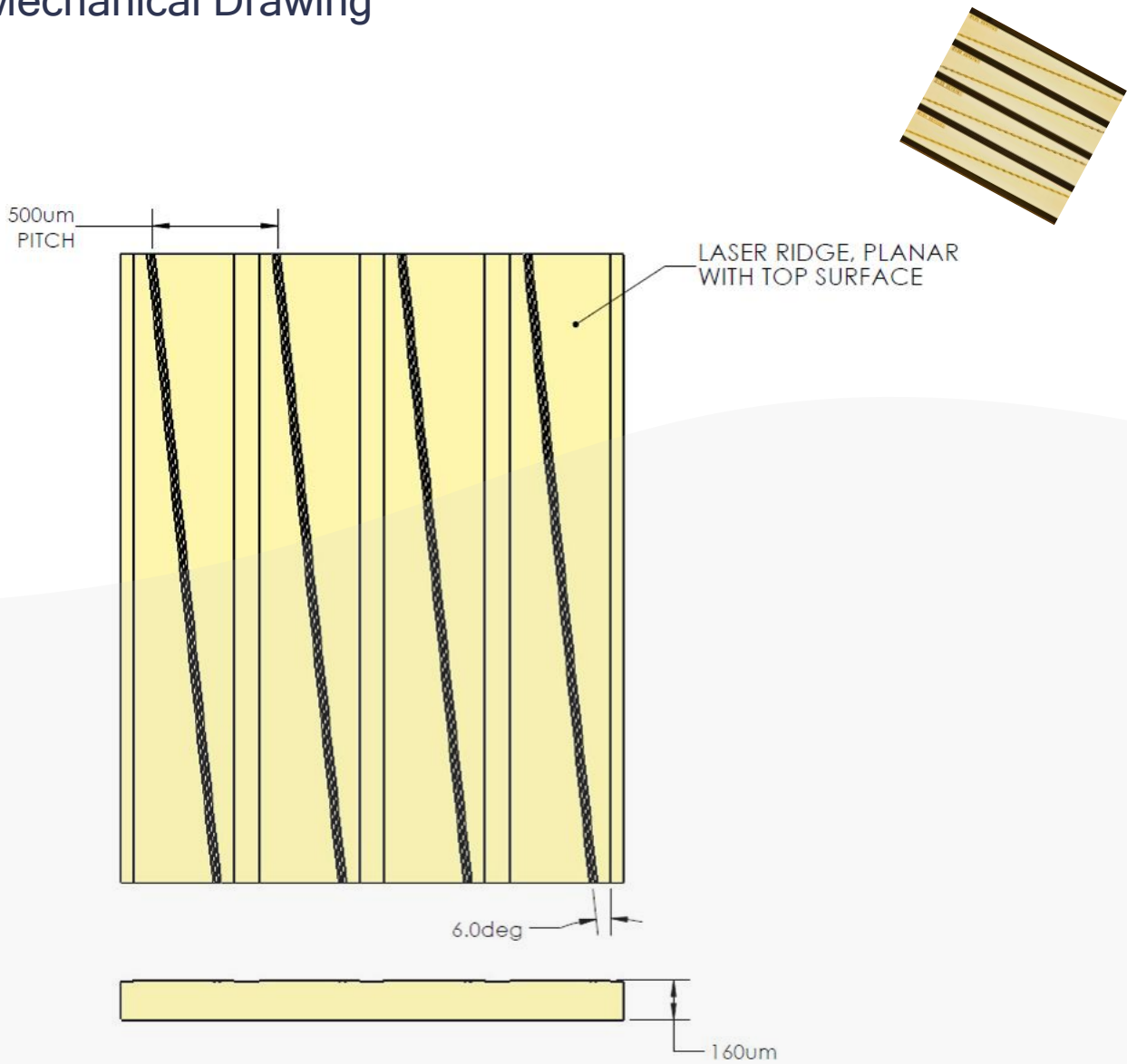
**Specified operating conditions are based on 20 $^{\circ}\text{C}$ heat sink temperature. High temperature operation will reduce performance and MTTF.

**Specified values are based on the P-side down configuration and rated at a constant heat sink temperature of 20 $^{\circ}\text{C}$. Unless otherwise indicated all values are nominal.

High Power SOA Mini Bar



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

