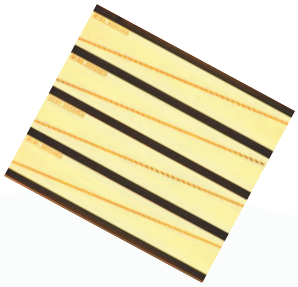
High Power SOA Mini Bar

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.

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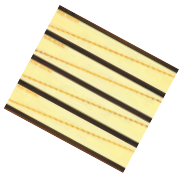
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High Power SOA Mini Bar

Specification

BARm-183



Optical	Symbol	Typ.	Units
Center Wavelength	λ_c	1550	nm
Output Power per emitter @1A*	P_{out}	0.35	Watts
Number of Emitters		4	
Emitter Width	W	4	µm
Spectral Width FWHM	$\Delta\lambda$	80	nm
Gain @ Pin=10µW	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.	$\Theta_{\perp}$	30	deg FWHM
Slow Axis Div.	$\Theta_{\parallel}$	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	°C
Storage Temp.		-40 to 85	°C

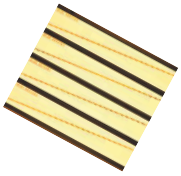
**Specified operating conditions are based on 20°C heat sink temperature. High temperature operation will reduce performance and MTTF.
**Specified values are based on the P-side down configuration and rated at a constant heat sink temperature of 20°C.
Unless otherwise indicated all values are nominal.

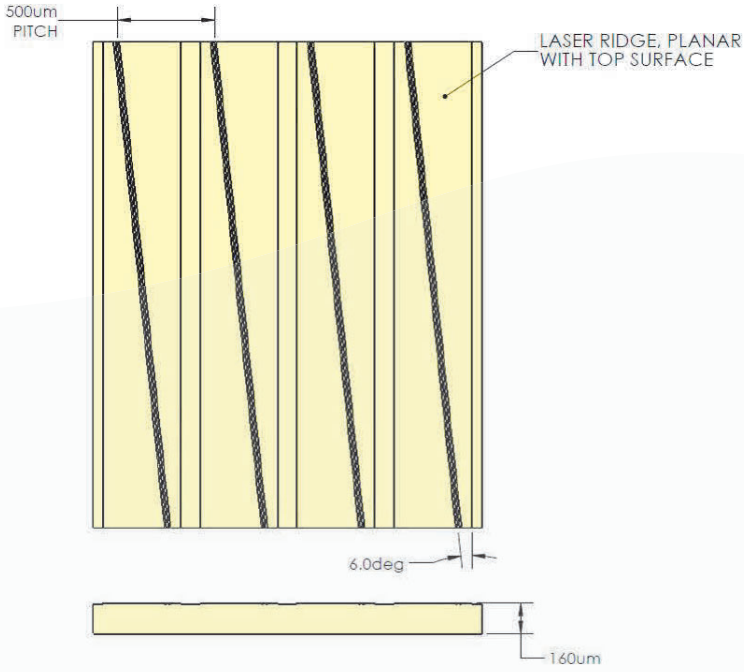
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High Power SOA Mini Bar

Mechanical Drawing





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