High Power Laser Diode B-mount

Part Number: B-165

High Power B-mount
Multi-Mode Fabry-Perot
CW Wavelength at 1940nm
Lensed Options Available

Features

- High Output Power
- High Dynamic Range
- High Efficiency
- Standard B-mount
- Cost Effective

Application

- Professional Medical

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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Specification

B-165

Optical	Symbol	Typ.	Units
Center Wavelength	λ_c	1940	nm (±20)
Output Power (CW)*	P_{out}	1.1	watts (±10%)
Emitter Width	W	150	µm
Spectral Width FWHM	$\Delta\lambda$	10	nm
Slope Efficiency	η	0.3	W/A
Fast Axis Div.	$\Theta_{\perp}$	28	deg FWHM
Slow Axis Div.	$\Theta_{\parallel}$	11	deg FWHM
Electrical	**Symbol**		**Units**
Power Conversion Eff.	η	20	%
Threshold Current	I_{TH}	0.35	A
Operating Current	I_{op}	4	A
Operating Voltage	V_{op}	1.3	V
Mechanical	**Symbol**	**Range**	**Units**
Operating Temp.**		-40 to 60	°C
Storage Temp.		-40 to 80	°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.

*Available Lenses

Suffix	Description
-108	Lens Matched f=171µm, 5mm Lg
-118	Lens Collimated <10mrad f=274µm, 5mm Lg
-134	Lens Matched f=274µm, 5mm Lg
-141	Lens, FAC, f=590µm, 5mm Lg, Collimated 5mrad

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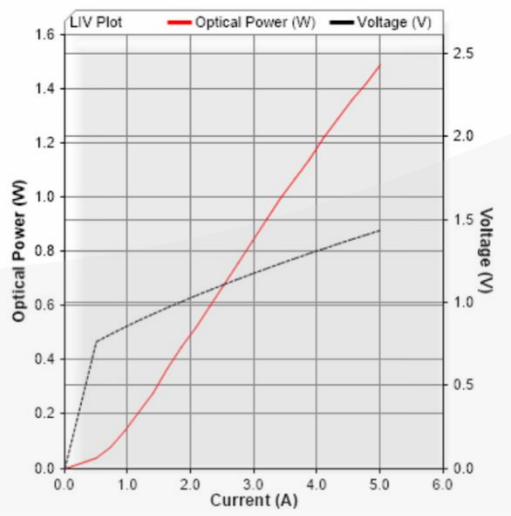
SemiNex Laser Diodes B-165

Graphs & Data

Typical B-mount L-I-V Characteristics



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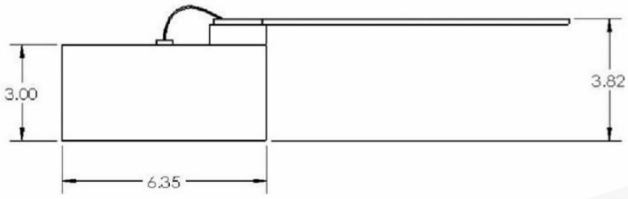
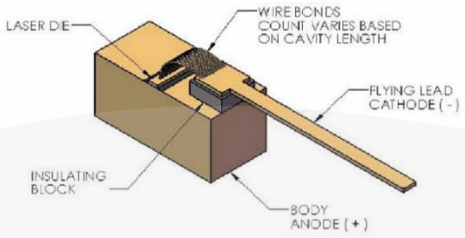
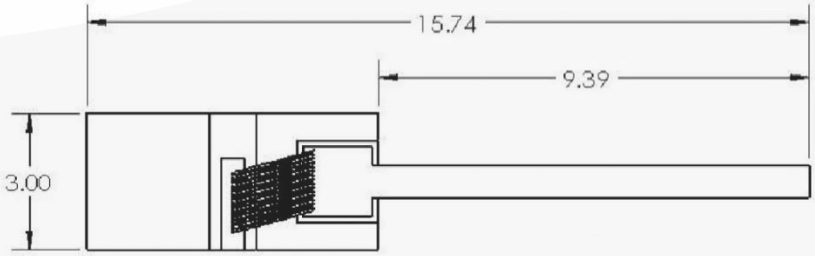
Mechanical Drawing







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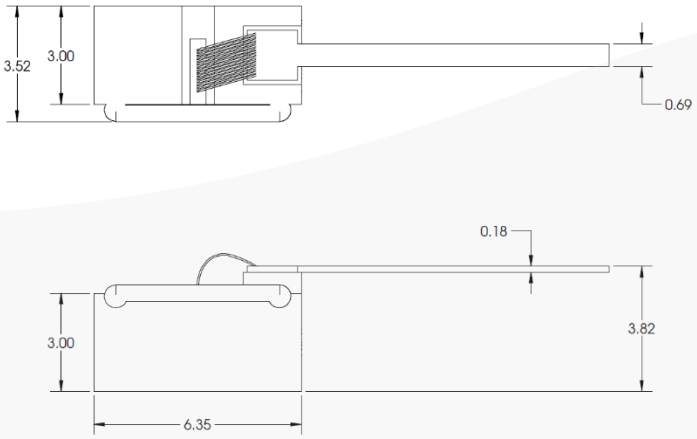
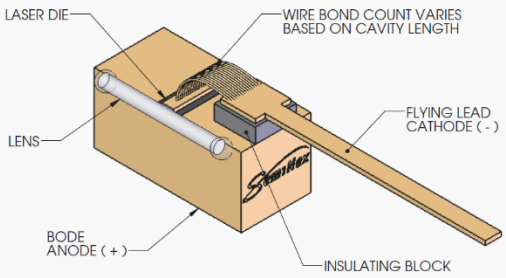
Mechanical Drawing
B-165-108
B-165-118
B-165-134
B-165-141





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