High Power Laser Diode TO-Cans

Part Number: TO56x-267

High Power Triple Junction TO56 Package
Multi-Mode Fabry-Perot
Pulsed Wavelength at 1550nm
Lensed Options Available

Features

- High Output Power
- High Dynamic Range
- High Efficiency
- Standard TO56
- Cost Effective

Application

- Professional Medical
- Home Use Medical
- Laser Range Finder
- Target Illumination
- Military Systems
- TOF LiDAR for Automotive and Drones
- Telecom OTDR
- 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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Specification

TO56x-267

Optical	Symbol	Typ.	Units
Center Wavelength	λ_c	1550	nm (±20)
Output Power (<10ns)*	P_{out}	100	Watts (±10%)
Output Power (150ns)*	P_{out}	75	Watts (±10%)
Emitter Width	W	350	µm
Spectral Width FWHM	$\Delta\lambda$	22	nm
Slope Efficiency	η	1	W/A
Fast Axis Div.	$\Theta_{\perp}$	28	deg FWHM
Slow Axis Div.	$\Theta_{\parallel}$	12	deg FWHM
Electrical	**Symbol**		**Units**
Power Conversion Eff.	η	7.4	%
Operating Current (<10ns)	I_{op}	100	A
Operating Current (150ns)	I_{op}	75	A
Threshold Current	I_{TH}	2	A
Operating Voltage	V_{op}	12	V
Duty Cycle	DC	0.1	%
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.

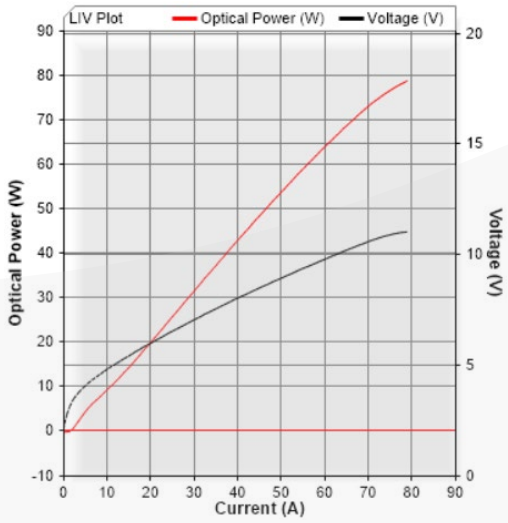
*Available Lenses & Caps

Part Number	Description
TO56x-267-184	TO-56 Cap Ht=6.4mm, Lens FAC f=1.2mm

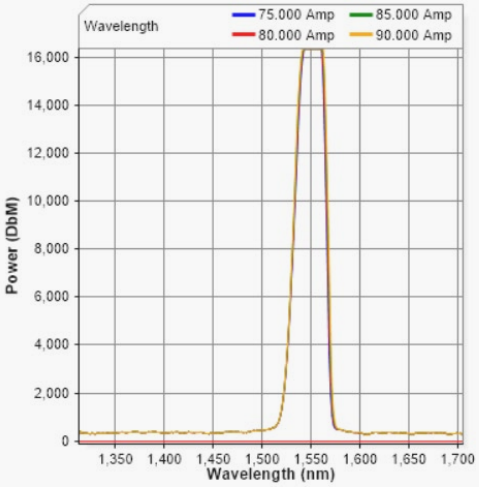
SemiNex Laser Diodes TO56x-267

Graphs & Data

Typical TO56x L-I-V Characteristics

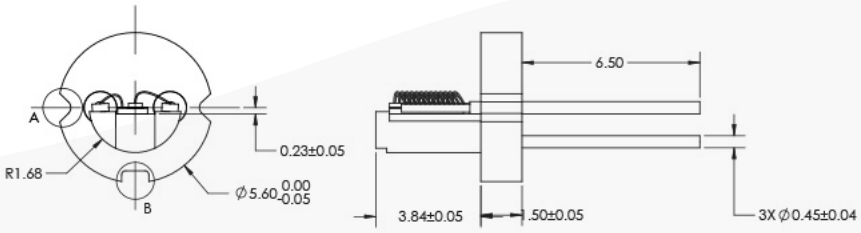


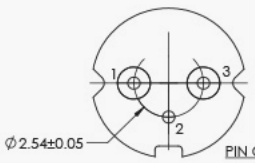
Typical TO56x Output Spectrum



*Tested with 150nsec pulse @ 0.1% Duty Cycle

Mechanical Drawing
TO56x-267





PIN OUT:

1. LD CATHODE (-)
2. CASE
3. LD ANODE (+)

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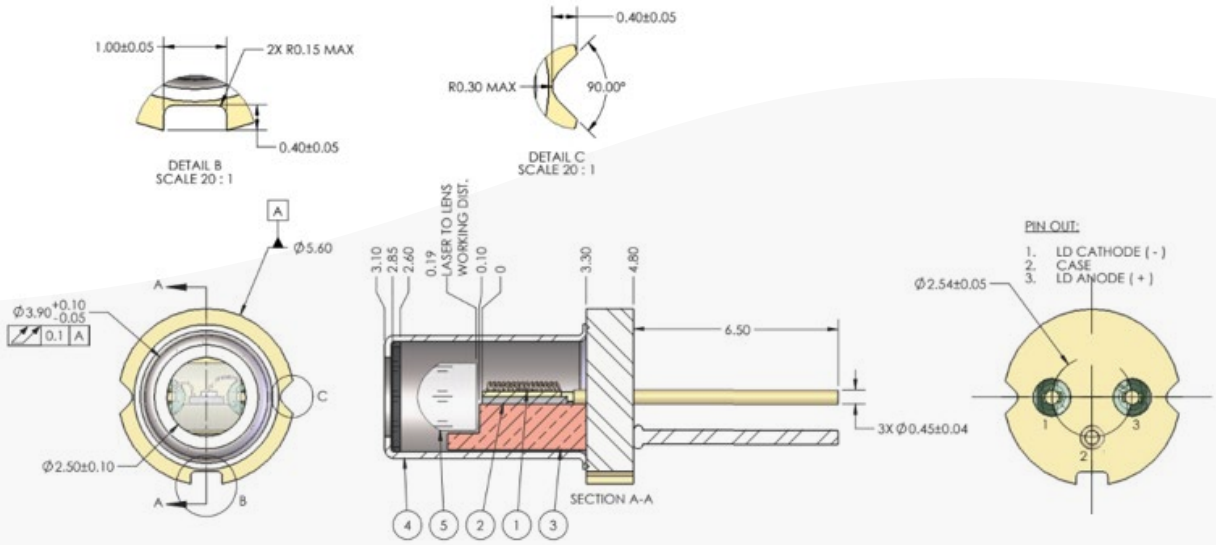
Mechanical Drawing
TO56x-267-184



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