

High Power Laser Diode Fiber Coupled TO9



Part Number: TO9F-265

High Power Triple Junction TO9 Fiber Coupled Module
Multi-Mode Fabry-Perot Laser Diode
Pulsed Wavelength at 1550nm



Features

- High Output Power
- High Dynamic Range
- High Efficiency
- TO9 Fiber Coupled Module
- Cost Effective

Application

- Telecom OTDR
- Optical Comm
- Laser Range Finder
- Target Illumination
- Military Systems
- TOF LiDAR for Automotive and Drones



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

TO9F-265



Optical	Symbol	Typ.	Units
Center Wavelength	λ_c	1550	nm (± 20)
Output Power (<10ns)*	P_{out}	20	Watts ($\pm 10\%$)
Output Power (150ns)*	P_{out}	13	Watts ($\pm 10\%$)
Spectral Width FWHM	$\Delta\lambda$	10	nm
Slope Efficiency	η	0.25	W/A
Optical Fiber Core Dia.		105	μm
Optical Fiber NA		0.22	
Electrical	Symbol		Units
Power Conversion Eff.	η	8	%
Operating Current (<10ns)	I_{op}	50	A
Operating Current (150ns)	I_{op}	40	A
Threshold Current	I_{TH}	0.07	A
Operating Voltage	V_{op}	2	V
Duty Cycle	DC	0.1	%
Mechanical	Symbol		Units
Fiber Length		1	meters
Connector Type		FC/PC	
		Range	
Operating Temp.**		-40 to 60	$^{\circ}C$
Storage Temp.		-40 to 80	$^{\circ}C$

PLEASE NOTE: The TO9F laser package is not electrically isolated.
The package body is the anode connection. Care should be taken in mounting and installation.

*Specified values are rated at a constant heat sink temperature of 20 $^{\circ}C$.

**High temperature operation will reduce performance and MTTF.
Unless otherwise indicated all values are nominal.

WARNING - FIBER HANDLING

- Do NOT bend the fiber tighter than 26 mm radius during installation or handling.
- Do NOT bend the fiber tighter than 52 mm radius during normal operation or long-term use.
- Exceeding these limits may cause permanent fiber damage and increased optical loss.

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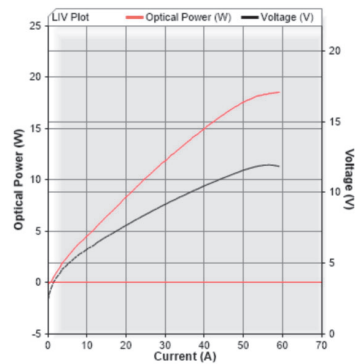
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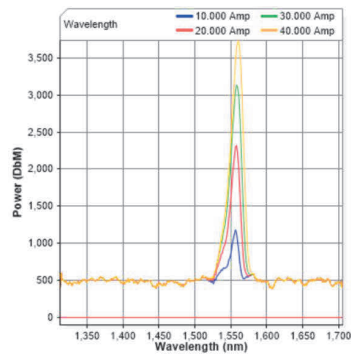
SemiNex Laser Diodes TO9F-265

Graphs & Data

Typical TO9F L-I-V Characteristics



Typical TO9F Wavelength Characteristics

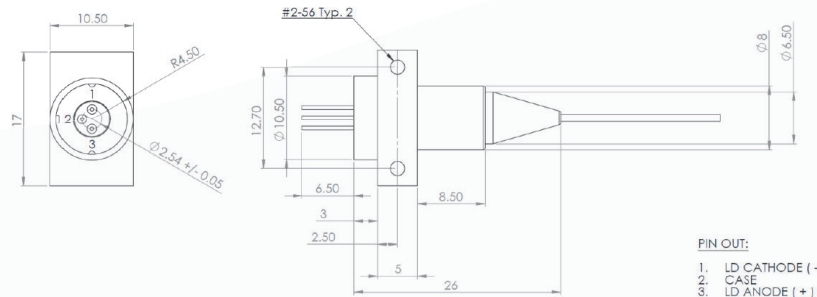


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Mechanical Drawing



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