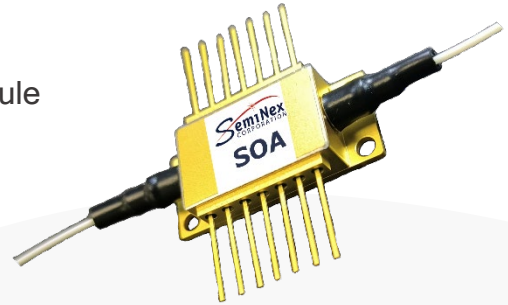


# High Power 14-Pin SOA Butterfly Fiber Module



## Part Number: 14BF-287

High Power 14-Pin SOA Butterfly Fiber Coupled Module  
Single-Mode SOA  
Wavelength at 1550nm



## Features

- High Output Power
- High Efficiency
- Polarization Maintenance Fiber
- Isolator Included before Output Fiber

## Application

- LiDAR
- Free Space Communications
- Optical Fiber Communications
- Network Test Equipment



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 14-Pin SOA Butterfly Fiber Module



## Specification

14BF-287



Optical	Symbol	Typ.	Units
Center Wavelength	$\lambda_c$	1550	nm
Output Power @1.2A*	$P_{out}$	24.3	dBm
PDL	PDL	0.1	dB
Return Loss (In)		40	dB
Return Loss (out)		50	dB
3dB Bandwidth	BW	80	nm
Gain @ Pin = 10 $\mu$ W	G	30	dB
Noise Figure	NF	7	dB
Electrical	Symbol		Units
Operating Current	$I_{op}$	1	A
Operating Voltage	$V_{op}$	2	V
Optical Fiber	Symbol		Units
Fiber Core		8	$\mu$ m
Fiber Package			
Connector Type		FC / APC	
Fiber Length		1	m
Pinout Type		Type 1	
Thermistor & TEC			
Thermistor Constant	$\beta$	3930	$\beta$
Thermistor Resistance	R	10	K ohm
Voltage (TEC) – Typ, Max	$V_{TEC}$	4.2, 8.2	V
Current (TEC) – Typ, Max	$I_{TEC}$	0.8, 2.6	A
		<b>Range</b>	
Operating Temp.**		-20 to 75	$^{\circ}$ C
Storage Temp.		-40 to 85	$^{\circ}$ C

\*Optical Output Power for 14BF-290 has an SOA current @ 1.2A and Pin @ 10dBm into fiber

\*Optical Output Power for 14BF-287 has an SOA current @ 1.2A and Pin @ 15dBm into fiber

\*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.

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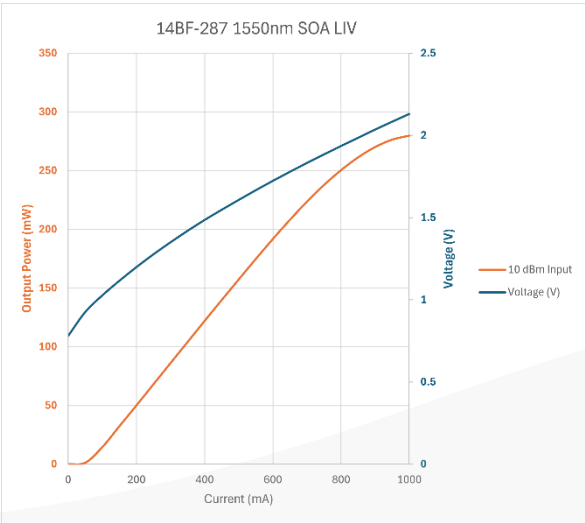
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## SemiNex Laser Diodes 14BF-287

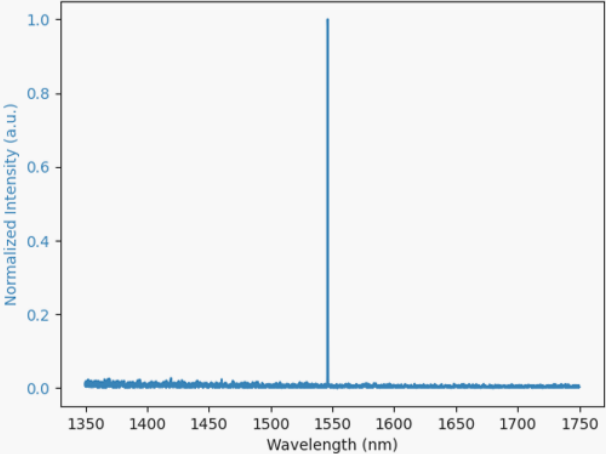
### Graphs & Data

### Typical 14BF L-I-V Characteristics



### Typical 14BF Output Spectrum

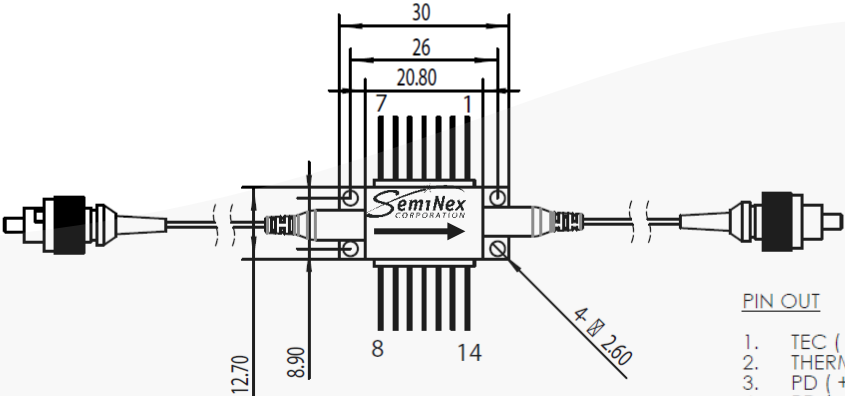
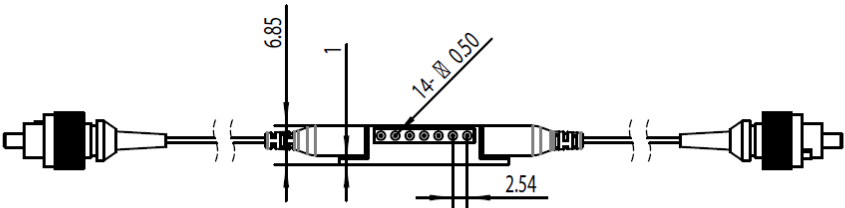
14BF-287 1550nm SOA Spectrum at 900mA



# High Power 14-Pin SOA Butterfly Fiber Module



## Mechanical Drawing



**PIN OUT**

- |               |                     |
|---------------|---------------------|
| 1. TEC (+)    | 14. TEC (-)         |
| 2. THERMISTOR | 13. CASE            |
| 3. PD (+)     | 12. N/C             |
| 4. PD (-)     | 11. SOA CATHODE (-) |
| 5. THERMISTOR | 10. SOA ANODE (+)   |
| 6. N/C        | 9. N/C              |
| 7. N/C        | 8. N/C              |

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