

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

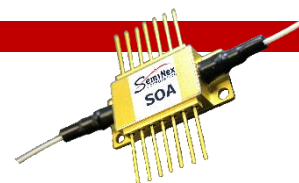
Application

- 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	λ_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 μ W	G	30	dB
Noise Figure	NF	7	dB
Electrical	Symbol		Units
Operating Current	I_{op}	1.2	A
Operating Voltage	V_{op}	2	V
Optical Fiber	Symbol		Units
Fiber Core		8	μ m
Fiber Package			
Connector Type		FC / APC	
Fiber Length		1	m
Pinout Type		Type 1	
Thermistor & TEC			
Thermistor Constant	β	3930	β
Thermistor Resistance	R	10	K ohm
Voltage (TEC) – typ, max	V_{TEC}		V
Current (TEC) – typ, max	I_{TEC}		A
		Range	
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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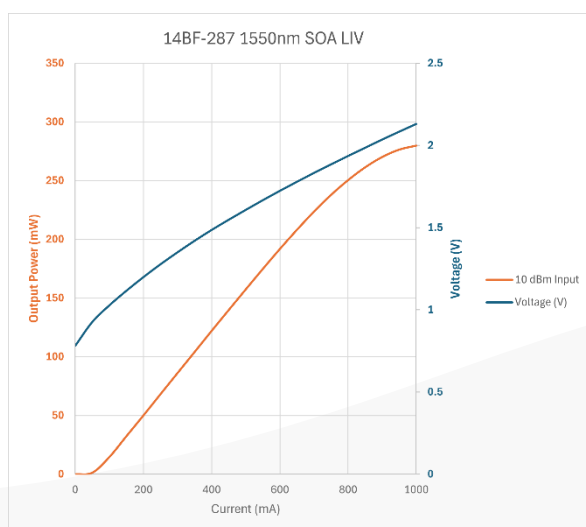
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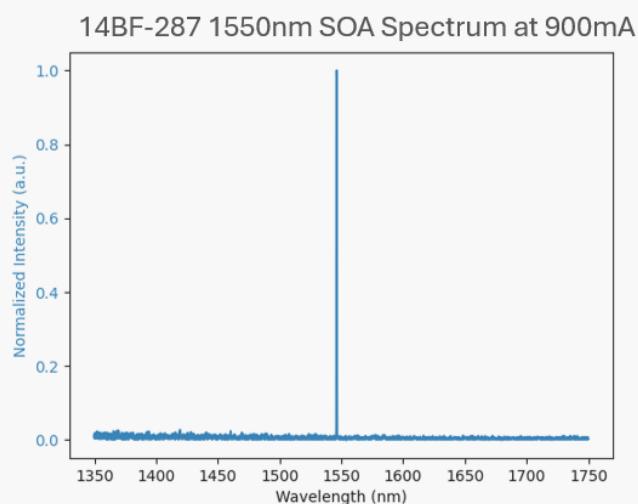
SemiNex Laser Diodes 14BF-287

Graphs & Data

Typical 14BF L-I-V Characteristics



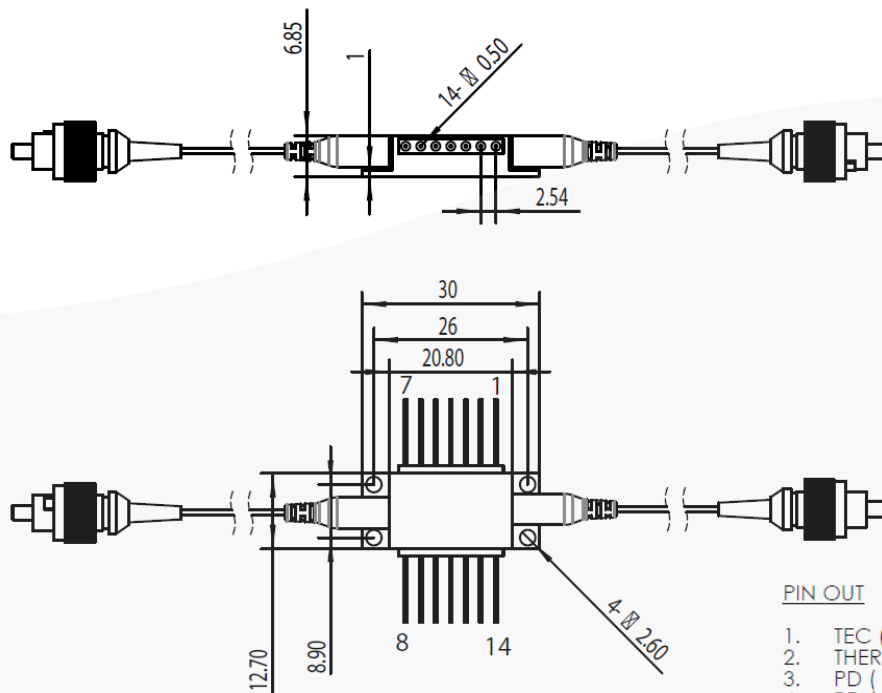
Typical 14BF Output Spectrum



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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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