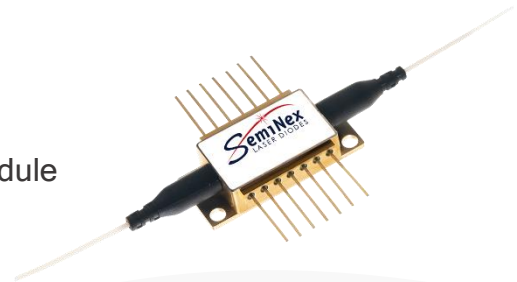


High Power 14-Pin SOA Butterfly Fiber Module



Part Number: 14BF-290

High Power 14-Pin SOA Butterfly Fiber Coupled Module
Single-Mode SOA
Wavelength at 1310nm



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-290



Optical	Symbol	Typ.	Units
Center Wavelength	λ_c	1310	nm
Output Power @1A*	P_{out}	24.9	dBm
PDL	PDL	0.4	dB
Return Loss (In)		45	dB
Return Loss (out)		50	dB
3dB Bandwidth	BW	80	nm
Gain @ Pin = 10 μ W	G	32	dB
Noise Figure	NF	6	dB
Electrical	Symbol		Units
Operating Current	I_{op}	1	A
Operating Voltage	V_{op}	2	V
Optical Fiber	Symbol		Units
Fiber Core		8	μ m
Fiber Package			
Fiber Type		900 μ m jacket	
Connector Type		FC / APC	
Fiber Length		1	m
Pinout Type		Type 1	
Thermistor			
Thermistor Constant	β	3930	β
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
		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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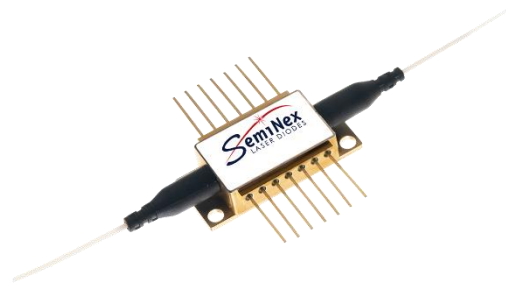
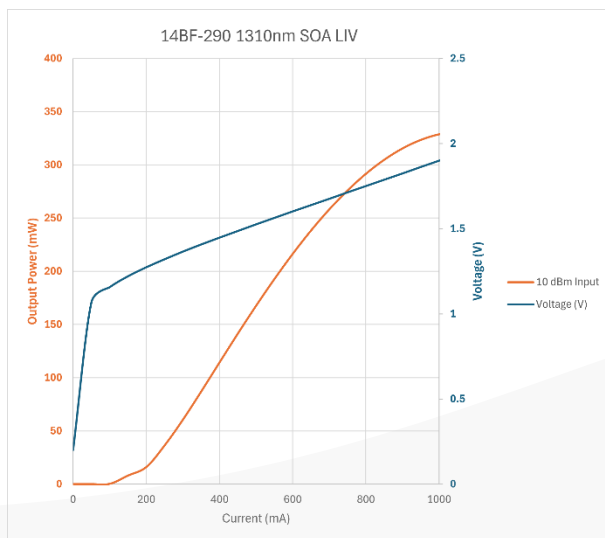
High Power 14-Pin SOA Butterfly Fiber Module



SemiNex Laser Diodes 14BF-290

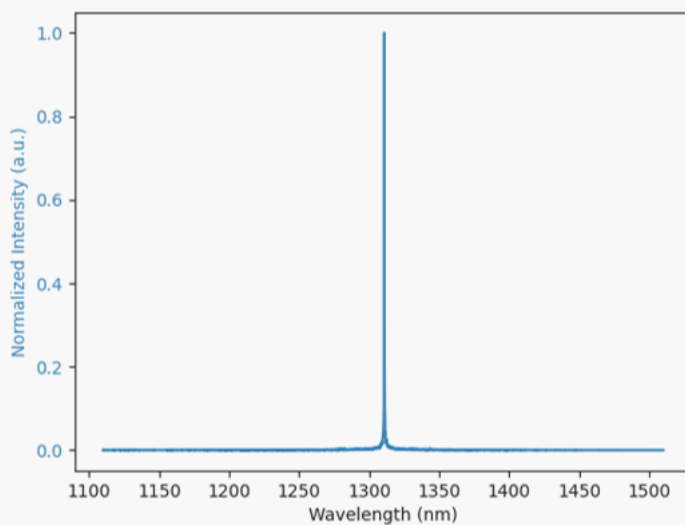
Graphs & Data

Typical 14BF L-I-V Characteristics



Typical 14BF Output Spectrum

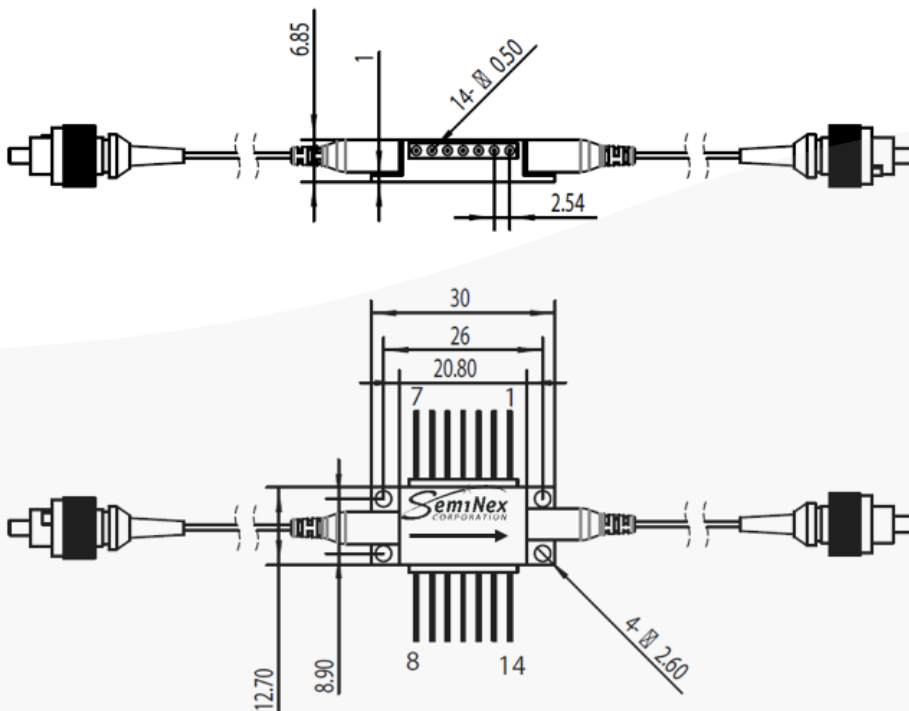
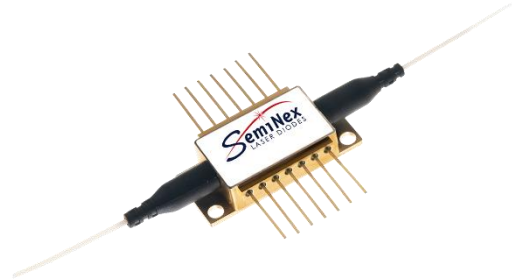
14BF-290 1310nm SOA Spectrum at 500mA



High Power 14-Pin SOA Butterfly Fiber Module



Mechanical Drawing



PIN OUT

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

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