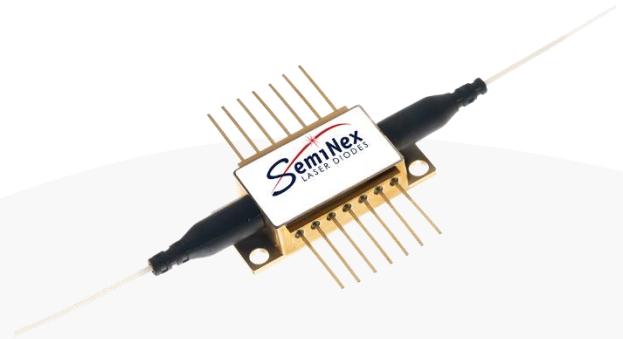


# SOA 14-Pin Butterfly Fiber Module



## Part Number: 14BF-291, 14BF-291C

14-Pin SOA Butterfly Fiber Coupled Module  
Single-Mode SOA  
Covering C band 1550nm  
Pre-Amplifier



## 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.

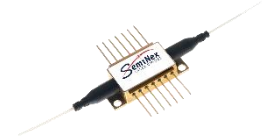
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# SOA 14-Pin Butterfly Fiber Module



## Specification

14BF-291, 14BF-291C



Optical	Symbol	Typ.	Units
ASE Center Wavelength	$\lambda_c$	1520/1550	nm
Output Power @ 0.5A, Pin=5dBm @ 1550nm	P <sub>out</sub>	17	dBm
PDL	PDL	0.02	dB
Return Loss (In)	RL	38	dB
Return Loss (out)	RL	50	dB
3dB Bandwidth	BW	80	nm
Small Signal Gain @ 0.5A	G	15	dB
Noise Figure	NF	5	dB
Electrical	Symbol		Units
Operating Current	I <sub>op</sub>	0.5	A
Operating Voltage	V <sub>op</sub>	2	V
Optical Fiber	Symbol		Units
Fiber Core		8	$\mu\text{m}$
Fiber Package			
Fiber Type		900 $\mu\text{m}$ jacket	
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 <sub>TEC</sub>	2.0, 8.2	V
Current (TEC) – Typ, Max	I <sub>TEC</sub>	0.5, 2.6	A
		<b>Range</b>	
Operating Temp.**		-20 to 75	$^{\circ}\text{C}$
Storage Temp.		-40 to 85	$^{\circ}\text{C}$

\*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.

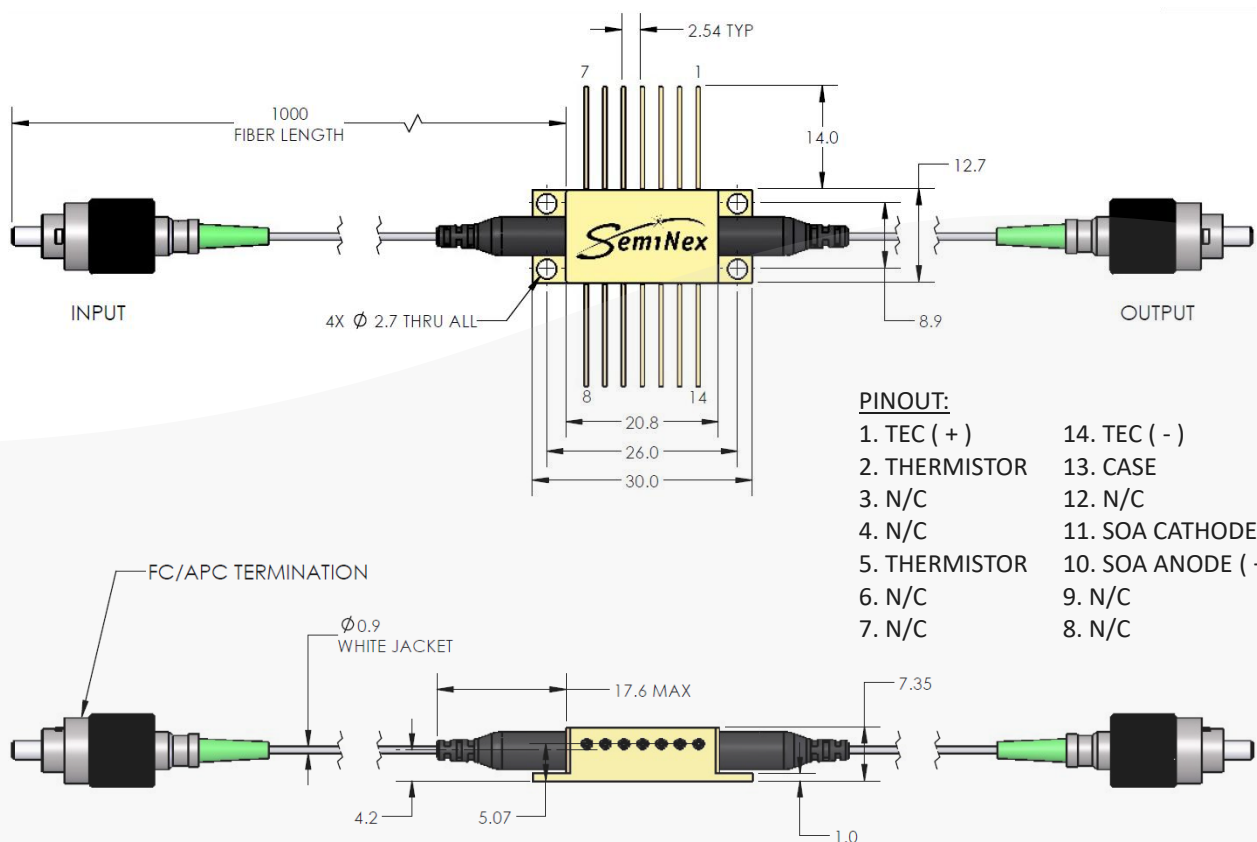
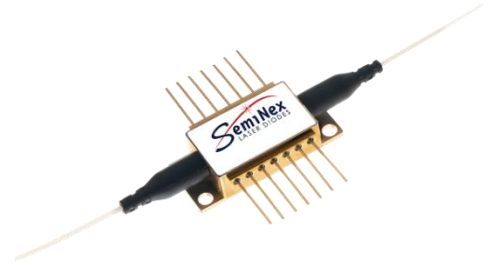
### WARNING - FIBER HANDLING

- 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.

# SOA 14-Pin Butterfly Fiber Module



## Mechanical Drawing



All statements, technical information and recommendations related to the product herein are based upon information believed to be reliable or accurate. The accuracy or completeness herein is not guaranteed, and no responsibility is assumed for any inaccuracies. The user assumes all risks and liability whatsoever in connection with the use of a product or its application. SemiNex Corporation reserves the right to change at any time without notice the design, specification, deduction, fit or form of its described herein, including withdrawal at any time of a product offered for sale herein. Users are encouraged to visit [www.seminex.com](http://www.seminex.com) for the latest data. SemiNex Corporation makes no representations that the products herein are free from any intellectual property claims of others. Please contact SemiNex for more information. 2024 SemiNex Corporation



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