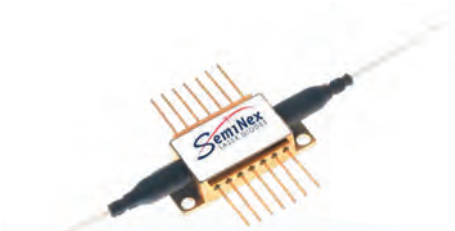
SOA 14-Pin Butterfly Fiber Module

Part Number: 14BF-311, 14BF-311O

14-Pin SOA Butterfly Fiber Coupled Module
Single-Mode SOA
Covering O band 1310nm
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-311, 14BF-311O

Optical	Symbol	Typ.	Units
Center Wavelength, 14BF-311/14BF-311O	λ_c	1285/1310	nm
Output Power @ 0.5A, Pin=5dBm	P_{out}	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_{op}	0.6	A
Operating Voltage	V_{op}	2	V
Optical Fiber	**Symbol**		**Units**
Fiber Core		8	µm
Fiber Package			
Fiber Type		900µm jacket	
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}	2.0, 8.2	V
Current (TEC) – Typ, Max	I_{TEC}	0.5, 2.6	A
		Range	
Operating Temp.**		-20 to 75	°C
Storage Temp.		-40 to 85	°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.

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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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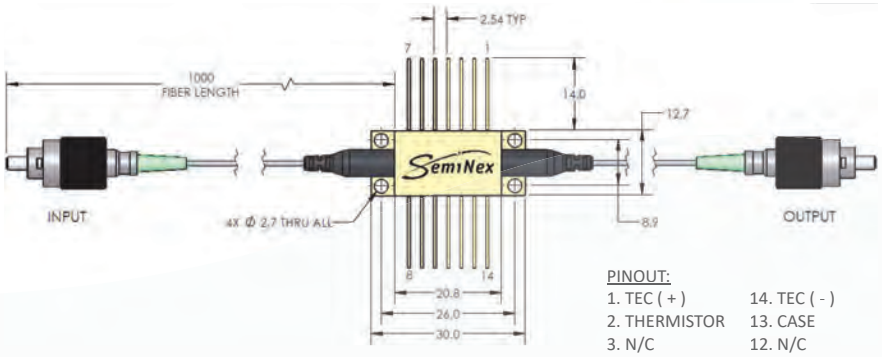
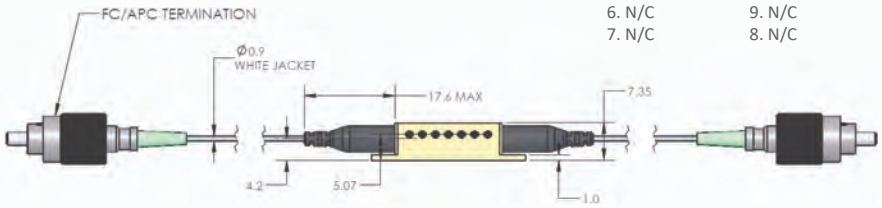
SemiNex CORPORATION

Mechanical Drawing



PINOUT:

1. TEC (+)	14. TEC (-)
2. THERMISTOR	13. CASE
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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