

# High Power Laser Diode 14BF Fiber Module

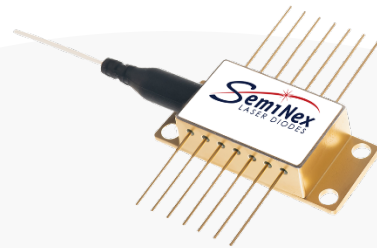


## Part Number: 14BF-105

High Power 14-Pin Butterfly Fiber Coupled Module  
Single-Mode Fabry-Perot  
CW Wavelength at 1550nm

## Features

- High Output Power
- High Dynamic Range
- High Efficiency
- 14BF Fiber Coupled Module
- Cost Effective



## Application

- Optical Communications



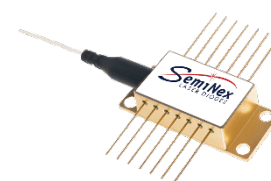
SemiNex delivers the highest available power at infrared wavelengths between 12xx and 19xx nm. When necessary, we will further optimize the design of our InP & GaSb laser chips to meet our customers' specific optical and electrical performance needs. Diodes, bars and packages are tested to meet customer and market performance demands. Typical results and packaging options are shown. Contact SemiNex for additional details or to discuss your specific requirements.

# High Power Laser Diode 14BF Fiber Module



## Specification

14BF-105



Optical	Symbol	Typ.	Units
Center Wavelength	$\lambda_c$	1550	nm ( $\pm 20$ )
Output Power (CW)*	$P_{out}$	0.2	watts ( $\pm 10\%$ )
Spectral Width FWHM	$\Delta\lambda$	10	nm
Slope Efficiency	$\eta$	0.2	W/A
Optical Fiber Core Dia.		9	$\mu\text{m}$
Optical Fiber NA		SMF-28	
Electrical	Symbol		Units
Power Conversion Eff.	$\eta$	10	%
Operating Current	$I_{op}$	1	A
Threshold Current	$I_{TH}$	0.05	A
Operating Voltage	$V_{op}$	2.2	V
Mechanical	Symbol		Units
Connector Type		FC/PC	
Fiber Length		1	meters
Pinout Type		Type 1	
Thermistor			
Thermistor Constant	$\beta$	3950	$\beta$
Thermistor Resistance	R	10	K ohm
		Range	
Operating Temp.**		-40 to 60	$^{\circ}\text{C}$
Storage Temp.		-40 to 80	$^{\circ}\text{C}$

\*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.

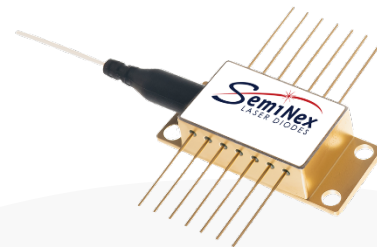
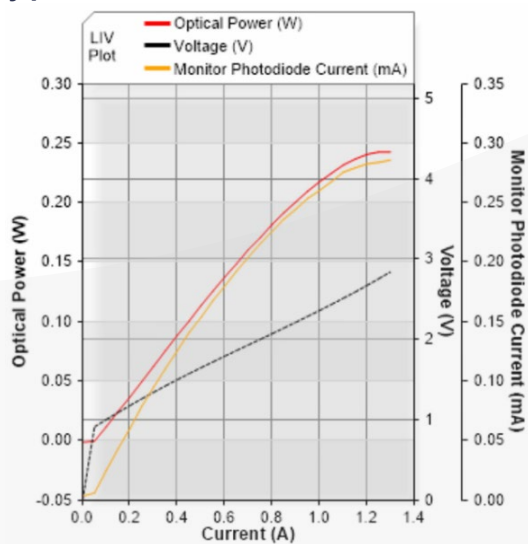
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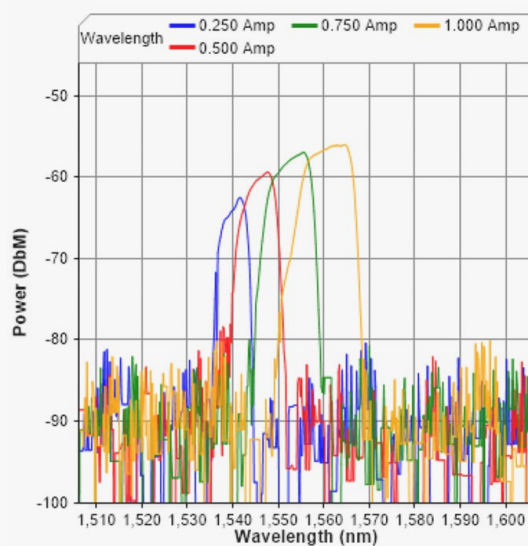
## SemiNex Laser Diodes 14BF-105

### Graphs & Data

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



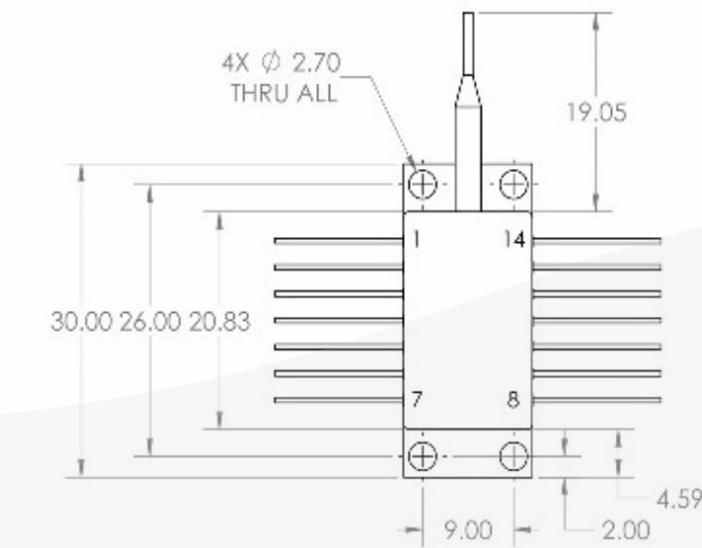
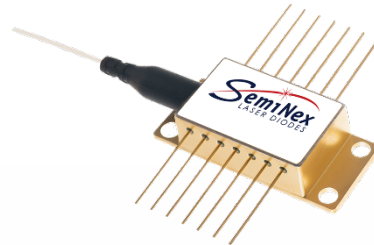
#### Typical 14BF Output Spectrum



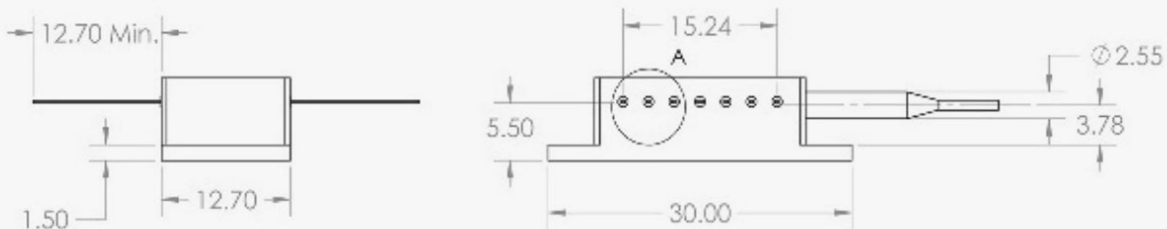
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## Mechanical Drawing



Type 1	
Pin	Function
1	TEC anode(+)
2	thermistor
3	PD anode(+)(optional)
4	PD cathode(-) (optional)
5	thermistor
6,7,8,9,12	no connection
10	laser anode(+)
11	laser cathode(-)
13	case ground
14	TEC cathode(-)



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