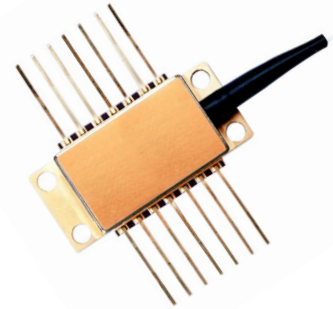


B Series Butterfly

Single-mode, Continuous Wave (CW) 14-pin Butterfly Laser Module 785-1064nm

BF



Sheaumann's single-mode butterfly modules are electrically isolated and hermetically sealed with an internal TEC, thermistor and photodiode. Butterfly modules are ideal for industrial or commercial use and can be customized with optional protection against damaging reverse currents. Sheaumann's proprietary laser chip design offers unrivaled quality, high brightness, and long lifetime. Wavelength emission range 785-1064nm. Wavelength tolerances ± 3 , ± 5 , or ± 10 nm available. Available options include fiber bragg grating (FBG) and polarization maintaining fiber.

Applications

Medical	Industrial	Defense
Therapeutic and Aesthetic Procedures Raman Spectroscopy Diagnostics Oral and Ophthalmic Surgery	Optical Pumping Measurement and Analysis Particle Counting Interferometry	Illumination Sensing Rangefinding Communications

Optical Electrical Characteristics, Typical Values ($T_C=25^\circ\text{C}$)

Parameter	Unit	BF-785		BF-808		BF-830		BF-852	BF-915		BF-940		BF-980		BF-A64
Wavelength	nm	785		808		830		852	915		940		980		1064
Operating Power	mW	70	200	70	200	70	300	70	200	200	300	200	400	200	200
Operating Current*	mA	130	310	130	340	130	490	130	300	300	480	490	740	380	
Operating Voltage	V	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	
Threshold Current	mA	45	65	35	55	35	60	35	35	35	50	50	70	35	
Slope Efficiency	W/A	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.6	0.6	0.6	

Don't see your part listed? Contact sales@sheaumann.com for a complete list of offerings.

Typical Thermistor and TEC Properties

Parameter	Unit	Value
Thermistor Resistance	k Ω	10
Thermistor B Constant	K	3900
TEC Max Current	A	0.9
TEC Max Voltage	V	2.1

Fiber Pigtail Characteristics

Parameter	Unit	Typical SM	Typical PM
Core Diameter	μm	5.6	5.6
Fiber Numerical Aperature	NA	0.14	0.14
Fiber Core Material		Pure silica	Pure silica
Connector at Fiber End		FC/APC(8°)	FC/APC(8°)

Absolute Maximum Ratings**

Parameter	Unit	Condition	Min	Typ	Max
Case Temperature***	$^\circ\text{C}$	CW	-20	25	50
Storage Temperature	$^\circ\text{C}$	CW	-40	25	85

* Please note that CW lasers may be damaged by excessive drive current or switching transients.

** Data is based on CW operation at 25 $^\circ\text{C}$ within a hermetically sealed package.

*** Device degradation accelerates with increased temperature; therefore, careful attention to minimize the case temperature is advised.

Visit sheaumann.com or contact sales@sheaumann.com for more information on products and services.

This product sheet is for reference only. Specifications are subject to change without notice.

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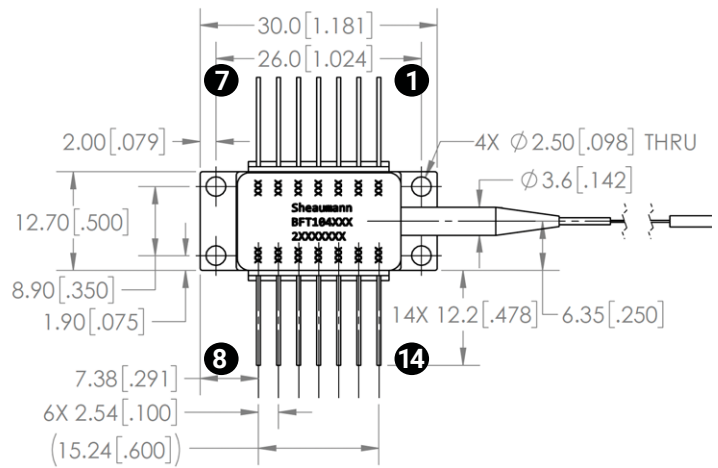
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+1 508.970.0600

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Pin Assignment

PIN #	Function	PIN#	Function
1	TEC +	14	TEC -
2	Thermistor	13	Case Ground
3	PD Anode (+)	12	N/A
4	PD Cathode (-)	11	Laser Cathode (-)
5	Thermistor	10	Laser Anode (+)
6	N/A	9	N/A
7	N/A	8	N/A



Product Configurator

BF-(785-1064nm)-(up to 500mW)-(Option1, Option 2, Option 3)

B **F** - - **0** - - -

Package	Wavelength	Power
BF	785	70mW 200mW
	808	70mW 200mW
	830	70mW 300mW
	852	70mW
	915	200mW
	940	200mW 300mW
	980	200mW 400mW
	A64 (1064)	200mW

Available Package Options

	Option 1	Option 2	Option 3
	code	code	code
Single-mode chip p-up	S	±3nm	3
		±5nm	5
Single-mode module w/PM fiber	P	±10nm	9
		FBG ±0.5nm	F
		PM Fiber	P
		No connector	0
		FC/APC connector	F

Don't see your part listed? Contact sales@sheumann.com for a complete list of offerings including custom package configurations and options.

Safety Warning

Laser light emitted from any laser diode is invisible and may be harmful to the human eye. Avoid looking directly into the laser aperture when the device is in operation. The use of optical instruments with this product will increase eye hazard.

ESD Warning

The primary cause of diode failure is unexpected electrostatic discharge. To help prevent device failures, the user should always wear an ESD wrist strap, ground all applicable work surfaces and follow anti-static techniques when handling diode lasers.

Laser Operation Consideration

Operating the laser beyond the limits of the provided specifications may result in device failure or a safety hazard and will void warranty. Devices must be passively or actively cooled in accordance with the provided specifications. Failure to comply with heatsinking requirements may result in device failure.

Warranty

Due to the delicate nature of laser diodes, Sheumann offers a limited warranty for all products. Please refer to our Terms and Conditions for full details.

Compliance Notice

These products are intended solely as a component of an electronic product and are not certified in accordance with IEC 60825-1 or 21 CFR 1040.10/21 CFR 1040.11. These products are subject to Export Administration Regulations (EAR) and will require a Destination Control Statement or End User Agreement for each sales order.



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sales@sheumann.com

+1 508.970.0600

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