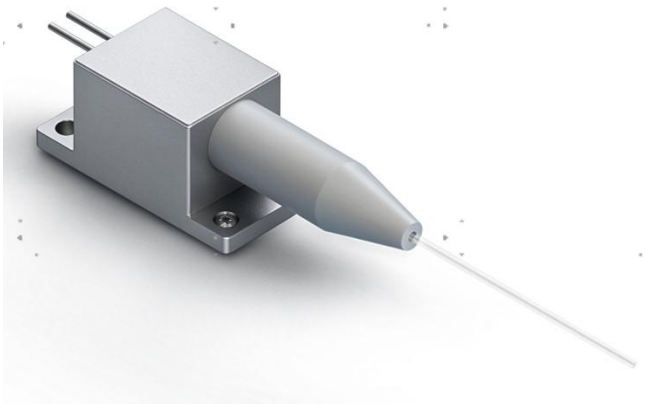
830nm 1W Fiber Coupled Diode Laser

K830F02FN-1.000WN0N-05014F05EST



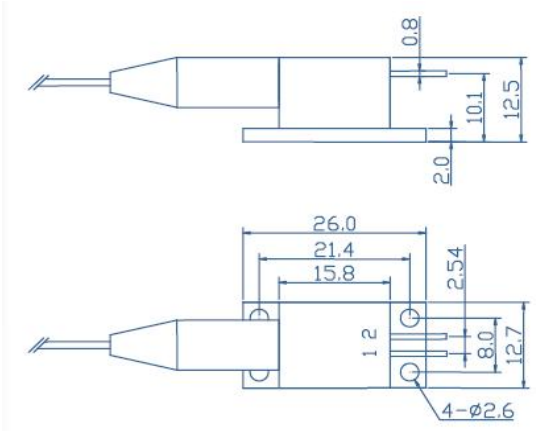
Features:

- 830nm wavelength
- 1 W output power
- 50 μ m fiber core diameter
- 0.14 NA

Applications:

- Printing application
- Scientific research

Package Dimensions (mm)



Pin	Function
1	激光器 (+)
2	激光器 (-)

OPERATING NOTES

- Avoid eye and skin exposure to direct radiation during operation.
- ESD precautions must be taken during storage, transportation and operation.
- Short-circuit is required between pins during storage and transportation.
- Please connect pins to wires by solder instead of using socket when operation current is higher than 6A. Soldering point should be close to the middle of the pins. Soldering temperature should be lower than 260℃ and time shorter than 10 second.
- Make sure the fiber output end is properly cleaned before operation of laser. Follow safety protocols to avoid injury when handling and cutting the fiber.
- Use constant current power supply to avoid surge current during operation.
- Laser diode must be used according to the specifications.
- Laser diode must work with good cooling.
- Operation temperature ranges from 15℃ to 35℃ .
- Storage temperature ranges from -20℃ to +70℃.



830nm 1W Fiber Coupled Diode Laser

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Specifications（25℃）		Symbol	Unit	K830F02FN-1.000WN0N-05014F05EST		
				Minimum	Typical	Maximum
Optical Data(1)	CW Output Power	P_o	W	1	-	-
	Center Wavelength(2)	λ_c	nm	830±10		
	Spectral Width(FWHM)	$\triangle\lambda$	nm	-	6	-
	Wavelength Shift with	$\triangle\lambda/\triangle T$	nm/℃	-	0.3	-
Electrical Data	Electrical-to-Optical Efficiency	PE	%	-	40	-
	Threshold Current	I_{th}	A	-	0.2	-
	Operating Current	I_{op}	A	-	1.4	1.5
	Operating Voltage	V_{op}	V	-	1.8	2
	Slope Efficiency	η	W/A	-	0.8	-
Fiber Data	Core Diameter	D_{core}	μm	-	50	-
	Cladding Diameter	D_{clad}	μm	-	125	-
	Numeric Aperture	NA	-	-	0.14	-
	Fiber Length	L_f	m	0.4	0.5	0.6
	Fiber Loose Tubing Diameter	-	mm	0.9mm PVC		
	Minimum Bending Radius	-	mm	50	-	-
	Fiber Termination	-	-	ST		
Others	ESD	V_{esd}	V	-	-	500
	Storage Temperature(2)	T_{st}	℃	-20	-	70
	Lead Soldering Temp	T_{ls}	℃	-	-	260
	Lead Soldering Time	t	sec	-	-	10
	Operating Case Temperature(3)	T_{op}	℃	15	-	35
	Relative Humidity	RH	%	15	-	75

(1) Data measured under operation output at 1W@25℃.

(2) A non-condensing environment is required for operation and storage.

(3) Operating temperature defined by the package case. Acceptable operating range is 15℃~35℃, but performance may vary.

Declaration : information and specifications contained herein are deemed to be reliable and accurate. Hyperline reserves the right to change, alter or modify the design and specifications of these products at any time without notice.26-09