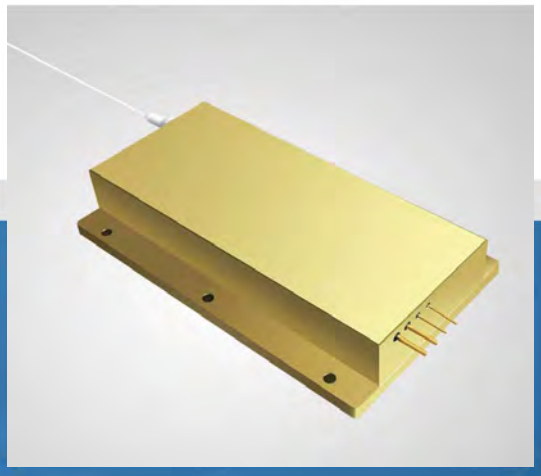

This product is sold and supported in the USA by

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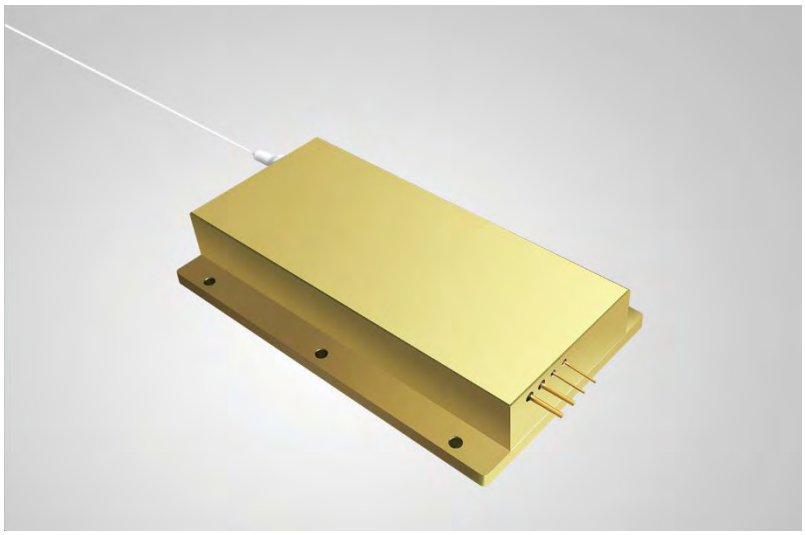
800.887.5065

793nm 80W Fiber Coupled Diode Laser
K793DA9RN-80.00W



Features：

- 793nm wavelength
- 80W output power
- 200μm fiber core diameter
- 0.22N.A.
- 1900nm-2100nm feedback protection

Applications：

- Fiber laser pumping
- Solid state laser pumping

BWT Beijing's High Power Diode Laser Modules are manufactured by adopting specialized fiber-coupling techniques, resulting in volume products with a high efficiency, stability and superior beam quality. The products are achieved by transforming the asymmetric radiation from the laser diode chip into an output fiber with small core diameter by using special micro optics. Inspecting and burn-in procedures in every aspect come to a result to guarantee each product with the reliability, stability and long lifetime.

Our research staffs are constantly improving and innovating the processing technology in the producing process, based on the professional knowledge and experience accumulated in long-terms. We are also continuously developing new products to meet customers' specific needs.

At BWT Beijing, to provide high quality products with reasonable price is our always goal.

793nm 80W Fiber Coupled Diode Laser
K793DA9RN-80.00W

Specifications(25℃)		Symbol	Unit	K793DA9RN-80.00W		
				Minimum	Typical	Maximum
Parameter(1)	CW Output Power	P_O	W	80	-	-
	Threshold current	I_{th}	A	-	1	-
	Operating current	I_{op}	A	-	-	5
	Operating voltage	V_{op}	V	-	-	36.5
	Reverse Voltage	V_{re}	V	-	50	-
	Slope Efficiency	η	W/A	-	20	-
	Electrical-to-Optical Efficiency	PE	%	45	-	-
	Center wavelength	I_c	nm	790		796
	Spectral width(FWHM)	△I	nm	-	3	-
	Back reflection wavelength Range	λ	nm	1900	-	2100
	Back reflection isolation	-	dB	-	30	-
	Wavelength Shift with Temperature	-	nm/℃	85	-	-
	Light within 0.22NA	-	NA	-	0.3	-
	Life Time	MTTF	H	-	10000	-
Fiber Date	Buffer diameter	D_{buf}	μm	-	250	-
	Cladding diameter	D_{clad}	μm	-	220	-
	Core diameter	D_{core}	μm	-	200	-
	Numeric aperture	NA	NA	-	0.22	-
	Fiber length (2)	lc	m	0.9	1	1.1
	Fiber Bend Radius	-	-	-	35	-
Others	ESD	-	V	-	-	500
	Storage temperature	-	℃	-20	-	70
	Lead Soldering Temp	Tis	℃	-	-	260
	Lead Soldering Time	Tis	sec	-	-	10
	Operating case temperature	T_{op}	℃	15	-	35
	Relative Humidity	-	%	15	-	75

(1) Data measured under operation output at 80W.
(2) Other fibers available upon request.
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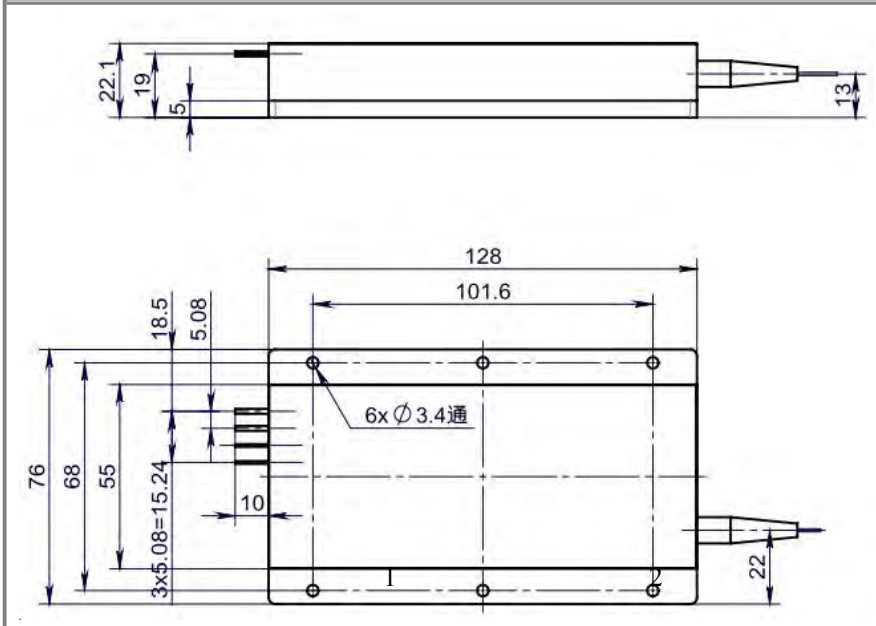
793nm 80W Fiber Coupled Diode Laser
K793DA9RN-80.00W

Package Dimensions (mm)



Pins	Function
1	LD (+)
2	LD (-)
3	Thermistor*
4	Thermistor*
5	PD (N) *
6	PD (P) *

OPERATING NOTES

- ◆ Avoid eye exposure to direct or scattered radiation.
- ◆ ESD precautions must be taken.
- ◆ 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 root of the pins. Soldering temperature should be lower than 260℃ and time shorter than 10 second.
- ◆ Use constant current power supply. Avoid surge current.
- ◆ Laser diode must be used according to the specifications.
- ◆ Laser diode must work with good cooling.
- ◆ A minimum bend radius should be 300 times greater than the fiber cladding diameter, dynamic bend radius should be 400 times greater than the fiber cladding diameter.
- ◆ Operation temperature is 15℃~ 35℃.
- ◆ Storage: -20℃~ +70℃, all pins short-circuit.

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