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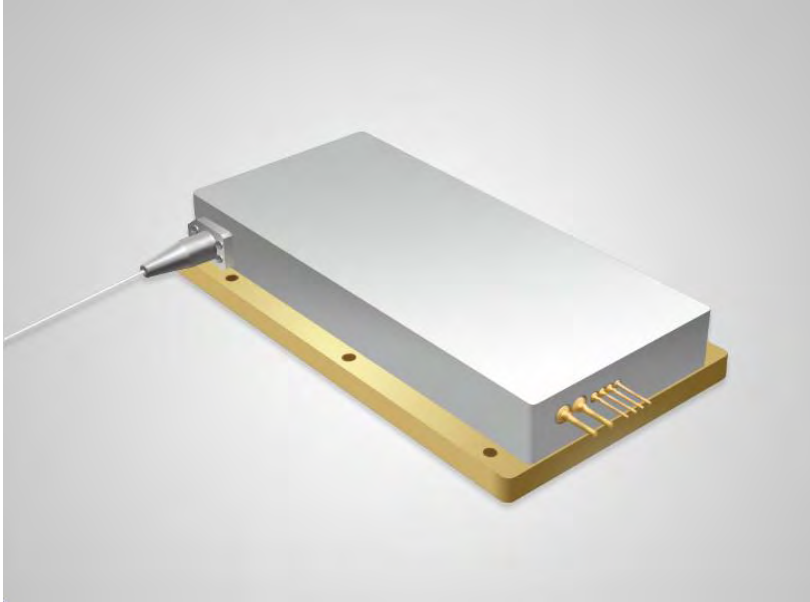
LASER LAB SOURCE
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976nm 200W High Power Fiber Coupled Diode Laser

K976FA9RN-200.0W



Features :

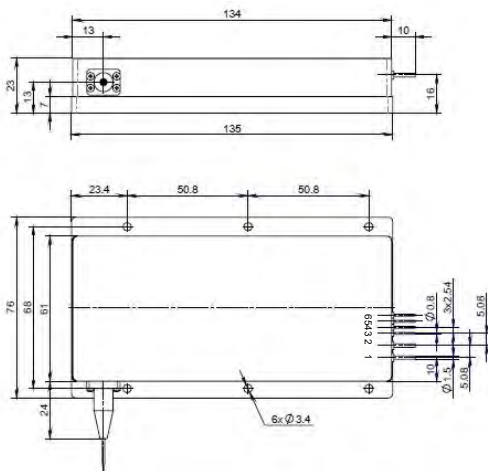
- ◆ 976nm wavelength
- ◆ 200W output power
- ◆ 200 μ m fiber core diameter
- ◆ 0.22N.A.
- ◆ 1040nm-1200nm feedback protection

Applications :

- ◆ Fiber laser pumping
- ◆ Material Processing

These 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. These high brightness laser diodes are developed by transforming the asymmetric radiation from the laser diode chip into an output fiber with a small core diameter using special micro-optics. Thorough inspection and burn-in procedures on every device ensure reliability, stability and long lifetime.

Package Dimensions (mm)



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

*: Optional functions.

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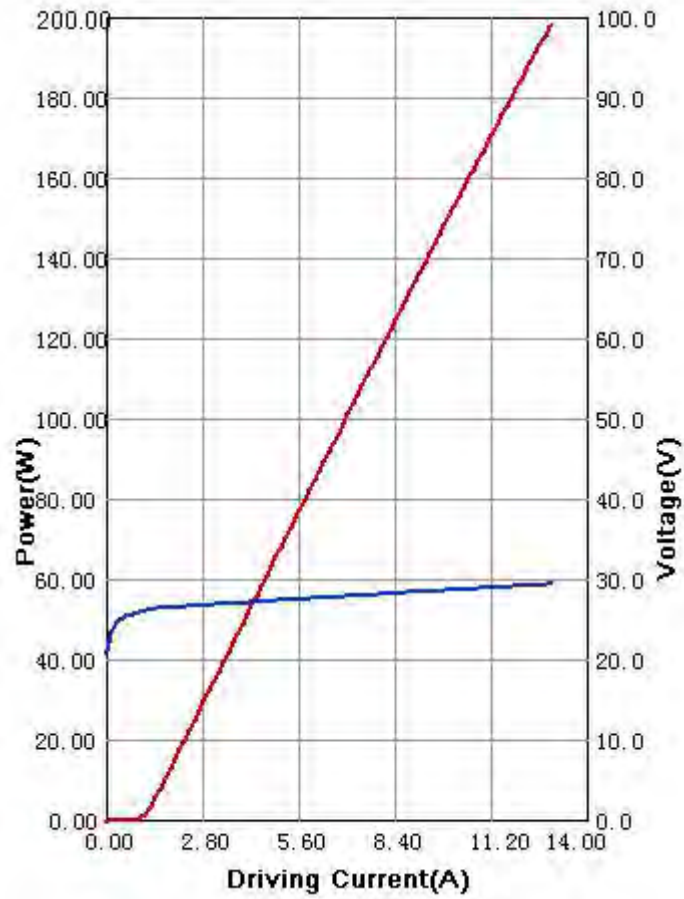
Specifications(25°C)		Symbol	Unit	K976FA9RN-200.0W		
				Minimum	Typical	Maximum
Parameter⁽¹⁾	CW Output Power	P _O	W	200	-	-
	Threshold current	I _{th}	A	-	1	-
	Operating current	I _{op}	A	-	13	14
	Operating voltage	V _{op}	V	-	-	40
	Reverse Voltage	V _{re}	V	-	50	-
	Slope Efficiency	η	W/A	-	17.5	-
	Electrical-to-Optical Efficiency	PE	%	-	48	-
	Center wavelength	λ _c	nm	973	-	979
	Spectral width(FWHM)	δλ	nm	-	6	-
	Back reflection wavelength Range	λ	nm	1040	-	1200
	Back reflection isolation	-	dB	-	30	-
	Wavelength Shift with Temperature	-	nm/°C	-	0.3	-
	Light within 0.17NA	NA	-	-	90	-
	Life Time	MTTF	hrs	-	100000	-
Fiber Data	Buffer diameter	D _{buf}	μm	-	320	-
	Cladding diameter	D _{clad}	μm	-	220	-
	Core diameter	D _{core}	μm	-	200	-
	Numeric aperture	NA	-	-	0.22	-
	Fiber length ⁽²⁾	l _f	m	-	1	-
	Fiber Bend Radius	-	mm	66	-	-
Others	ESD	V _{esd}	V	-	-	500
	Storage temperature	T _{stg}	°C	-20	-	70
	Lead Soldering Temp	T _{is}	°C	-	-	260
	Lead Soldering Time	t	sec	-	-	10
	Operating case temperature	T _{op}	°C	15	-	35
	Relative Humidity	RH	%	15	-	75

(1) Data measured under operation output at 200W.

(2) Other fibers available upon request.

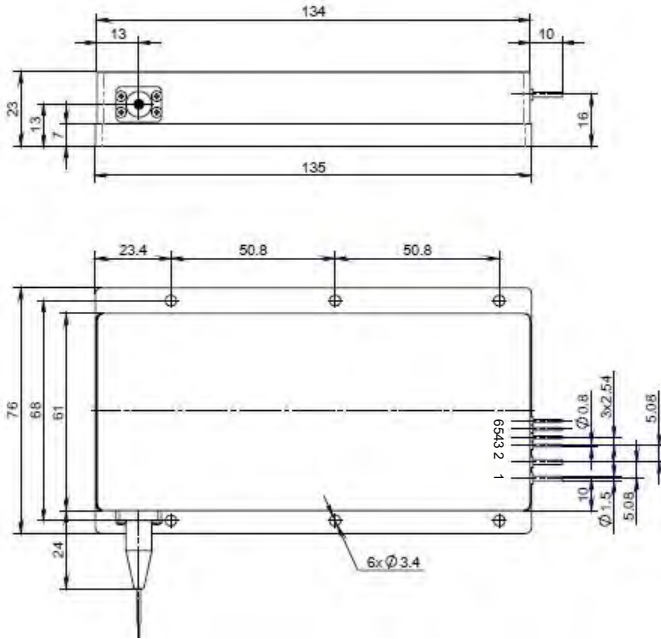
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Characteristics



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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°C 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.
- ◆ Operation temperature is 15°C~ 35°C.
- ◆ Storage: -20°C~ +70°C, 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.