976nm 9W Wavelength-Stabilized Fiber Coupled Diode Laser
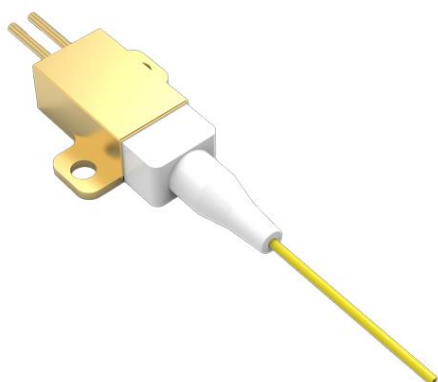## K976AB2RN-9.000WN0N-10522F20EFF(Standard Product)

**Features：**

- ◆ 976±0.5nm wavelength
- ◆ 9W output power
- ◆ 105μm fiber core diameter
- ◆ 0.22 NA
- ◆ 1020nm~1200nm feedback protection

Applications：

- ◆ Fiber Laser Pumping
- ◆ Scientific Research

BWT, founded in 2003, is committed to the mission of "let the dream drive the light", the vision of becoming the "Global leader in laser solutions", and the value of "Outstanding innovation", providing diode laser, fiber laser, ultra-fast laser products and solutions to global customers.

BWT pursues continuous innovation and insists on autonomous and controllable advanced process and technology. With Beijing headquarters as the core, BWT has successively established production and R&D centers in Jiangsu, and Shenzhen, and Invested in the construction of an automated and intelligent production base in Tianjin. To build a high level of technical strength and product quality, BWT set up a German subsidiary in 2020, and taking a solid step for the internationalization of R&D, production and technological innovation.
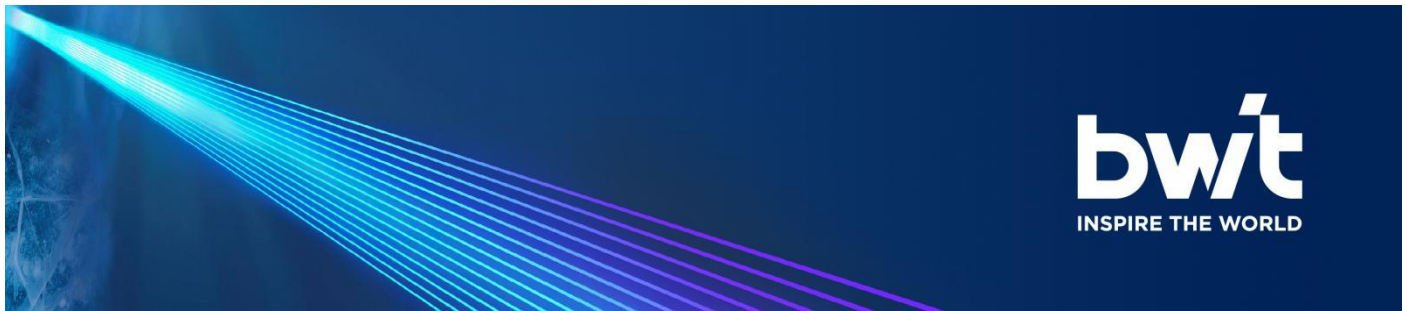
976nm 9W Wavelength-Stabilized Fiber Coupled Diode Laser

K976AB2RN-9.000WN0N-10522F20EFF(Standard Product)

Specifications（25℃）		Symbol	Unit	K976AB2RN-9.000W		
				Minimum	Typical	Maximum
Optical Data[1]	CW Output Power	P$_O$	W	9.0	-	-
	Center Wavelength	λ$_c$	nm	976±0.5		
	Spectral Width (FWHM)	Δλ	nm	-	0.5	0.7
	Wavelength Shift with Temperature	△λ/△T	nm/°C	-	0.02	-
	Wavelength Shift with Current	△λ/△I	nm/A	-	0.03	-
Electrical Data	Electrical-to-Optical Efficiency	PE	%	-	50	-
	Threshold Current	I$_{th}$	A	-	0.9	-
	Operating Current	I$_{op}$	A	-	12.0	13.0
	Operating Voltage	V$_{op}$	V	-	1.6	1.8
	Slope Efficiency	η	W/A	-	0.9	-
Fiber Data	Core Diameter	D$_{core}$	μm	-	105	-
	Cladding Diameter	D$_{clad}$	μm	-	125	-
	Numeric Aperture	NA	-	-	0.22	-
	Fiber Length	L$_f$	m	-	2	-
	Fiber Loose Tubing Diameter	-	mm	0.9		
	Minimum Bending Radius	-	mm	50	-	-
	Fiber Termination	-	-	FC-Ferrule		
Feedback Isolation	Wavelength Range	-	nm	1020~1200		
	Isolation	-	dB	-	30	-
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$_{op}$	℃	23	25	27
	Relative Humidity	RH	%	15	-	75

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

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

(3) Operating temperature defined by the package case. Acceptable operating range is 23℃~27℃, but performance may vary.

(4) Wavelength-Stabilized : Percentage of power in band of 974.5nm to 977.5nm ≥90%.

976nm 9W Wavelength-Stabilized Fiber Coupled Diode Laser

K976AB2RN-9.000WN0N-10522F20EFF(Standard Product)

Package Dimensions (mm)

Pin	Function
1	LD (+)
2	LD (-)

OPERATING NOTES

◆ Avoid eye and skin exposure to direct radiation during operation.

◆ ESD precautions must be taken during transportation, storage, and operation. A short-circuit connection is required between pins during transportation and storage.

◆ For lasers with operating currents above 6A, connect leads by soldering. The soldering point should be as close to the middle of the pins as possible, with a temperature below 260℃ and a soldering time of less than 10 seconds.

◆ Before operating the laser, ensure that the fiber output end is properly cleaned. Follow safety protocols when handling and cutting fiber to avoid injury.

◆ Use a constant current power supply and avoid surges during operation.

◆ Operate within the rated current and power levels.

◆ Ensure proper cooling during operation.

◆ The operating temperature range is 23℃ to 27℃.

◆ The storage temperature range is -20℃ to +70℃.