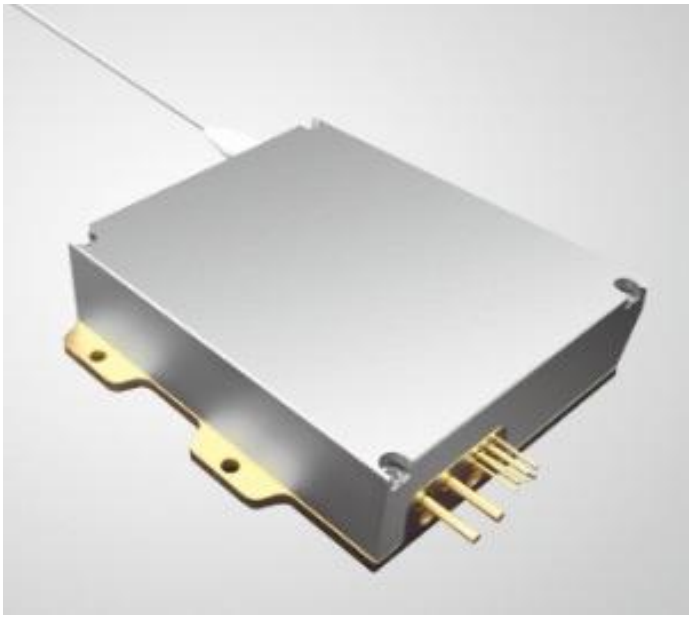
976nm 200W High Power Fiber Coupled Laser Diode

K976FN1RN-200.0W



Features:

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

Applications:

- Fiber laser pumping
- Material Processing

Specifications (25℃)		Symbol	Unit	K976FN1RN-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)	δ_λ	nm	-	6	-
	Back reflection wavelength Range	λ	nm	1040	-	1200
	Back reflection isolation	-	dB	-	30	-
	Wavelength Shift with Temperature	-	nm/℃	-	0.3	-
	Light within 0.17NA	NA	-	-	90	-
	Life Time	MTTF	hrs	-	100000	-
Fiber Date	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}	℃	-20	-	70
	Lead Soldering Temp	T_{ls}	℃	-	-	260
	Lead Soldering Time	t	sec	-	-	10
	Operating case temperature	T_{op}	℃	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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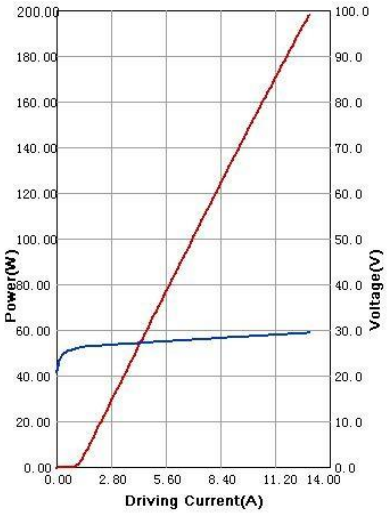
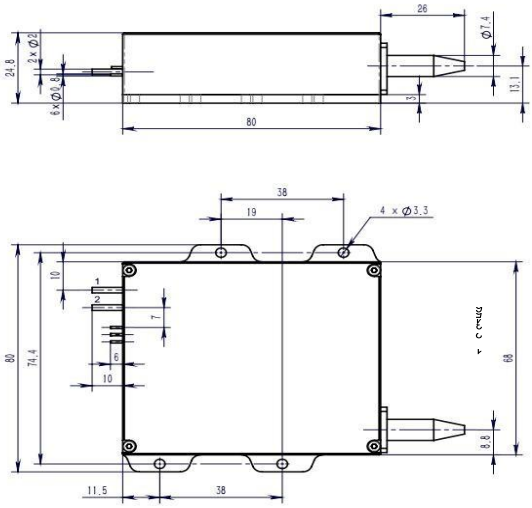
Characteristics



Package Dimensions (mm)



Pin	Function
1	LD（+）
2	LD（-）

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.
- Operation temperature is 15℃~ 35℃.
- Storage: -20℃~ +70℃, all pins short-circuit.