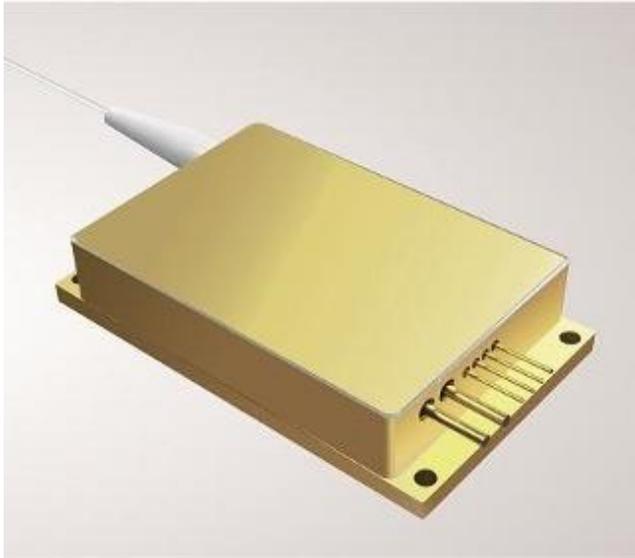


976nm 70W High Power Fiber Coupled Laser Diode

K976DA5RN-70.00W (Standard Product)



Features:

- 976nm wavelength
- 70W output power
- 106.5 μ m fiber core diameter
- 0.22NA
- 1040nm-1200nm feedback protection

Applications:

- Laser pumping
- Medical Use
- Material Processing

Specifications (25°C)		Symbol	Unit	K976DA5RN-70.00W		
				Minimum	Typical	Maximum
Optical Data ⁽¹⁾	CW Output Power	P_o	W	70	-	-
	Center Wavelength	λ_c	nm	976 \pm 3		
	Spectral Width (FWHM)	$\Delta\lambda$	nm	6		
	Wavelength Shift with Temperature	$\Delta\lambda/\Delta T$	nm/°C	-	0.3	-
	Wavelength Shift with Current	$\Delta\lambda/\Delta A$	nm/A	-	1	-
Electrical Data	Electrical-to-Optical Efficiency	PE	%	-	48	-
	Operating Current	I_{op}	A	-	12	13
	Threshold Current	I_{th}	A	-	0.9	-
	Operating Voltage	V_{op}	V	-	11	12.5
	Slope Efficiency	η	W/A	-	6.5	-
Fiber Data	Core diameter	D_{core}	μ m	-	106.5	-
	Cladding diameter	D_{clad}	μ m	-	125	-
	Buffer diameter	D_{buf}	μ m	-	245	-
	Numerical Aperture	N.A.	-	-	0.22	-
	Total Fiber Length	L_f	m	-	2	-
	Fiber Loose Tubing Diameter/Length	-	μ m	0.9mm PVC 180cm		
	Minimum Bending Radius	-	mm	50	-	-
Fiber termination	-	-	-	无	-	
Feedback Isolation	Wavelength Range	λ	nm	1040~1200		
	Isolation	-	dB	-	30	-
Others	ESD	V_{esd}	V	-	-	500
	Storage Temperatur ⁽²⁾	T_{st}	°C	-20	-	70
	Lead Soldering Temp	T_{ls}	°C	-	-	260
	Lead Soldering Time	t	sec	-	-	10
	Operating Case Temperature ⁽³⁾	T_{op}	°C	15	-	35
	Relative Humidity	RH	%	15	-	75

(1) Data measured under operation output at 70W@25°C.

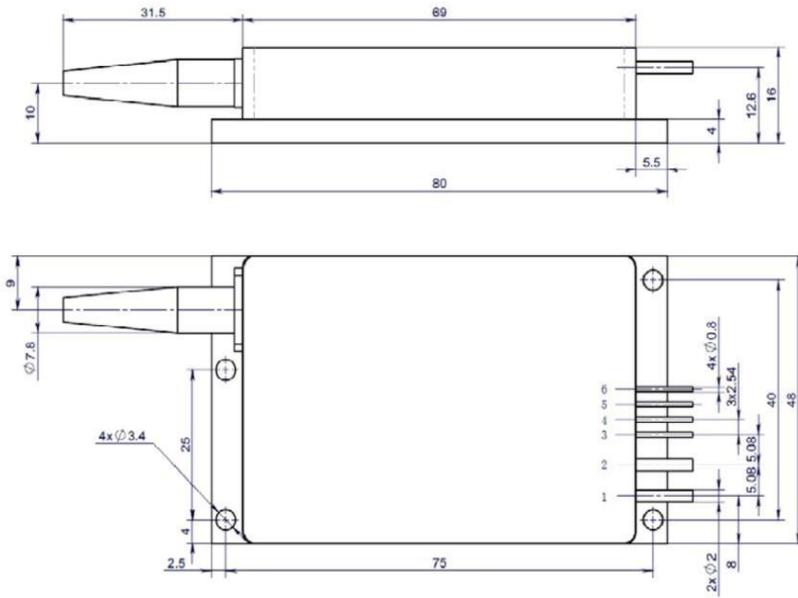
(2) A non-condensing environment is required for operation and storage.

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

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Package Dimensions (mm)



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

OPERATING NOTES

- Avoid eye and skin exposure to direct radiation during operation.
- ESD precautions must be taken during storage, transportation and operation.
- 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.
- 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°C to 35°C.
- Storage temperature ranges from -20°C to +70°C.