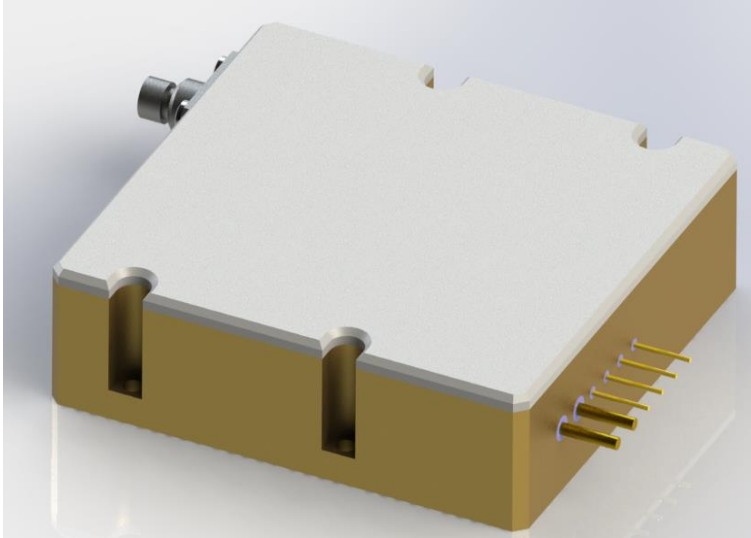


976nm 200W High Power Detachable Diode Laser

RPK976-200.0W-40022-SM (Customized Product)



Features:

- ◆ 976nm wavelength
- ◆ 200W output power
- ◆ 400 μ m fiber core diameter
- ◆ 0.22NA
- ◆ 1040nm~1200nm feedback protection

Applications:

- ◆ Material Processing
- ◆ 3D Printing

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.

High quality products with reasonable price is our always goal.

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Specifications(25°C)		Symbol	Unit	RPK976-200.0W-40022-SM		
				Minimum	Typical	Maximum
Optical Data⁽¹⁾	CW-Output Power	P_o	W	200	-	-
	Center Wavelength	λ_c	nm	976±10		
	Spectral Width (FWHM)	$\Delta\lambda$	nm	-	< 5	-
	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	%	-	45	-
	Operating Current	I_{op}	A	-	13.5	14
	Threshold Current	I_{th}	A	-	0.9	-
	Operating Voltage	V_{op}	V	-	-	37.5
	Slope Efficiency	η	W/A	-	17	-
Fiber Data	Core Diameter	D_{core}	μm	-	400	-
	Numerical Aperture	NA	-	-	0.22	-
	Connector	-	-	-	SMA905	-
Feedback Isolation	Wavelength Range	λ	nm	1040~1200		
	Isolation	-	dB	-	30	-
Others	ESD	V_{esd}	V	-	-	500
	Storage Temperature ⁽²⁾	T_{st}	°C	-20	-	70
	Lead Soldering Temp	T_{is}	°C	-	-	260
	Lead Soldering Time	t	sec	-	-	10
	Operating Case Temperature ⁽³⁾	T_{op}	°C	20	-	30
	Relative Humidity	RH	%	15	-	75
Aiming Beam Data	Output Power	P_a	mW	-	2	-
	Wavelength	λ_a	nm	635±10		
	Voltage	V_a	V	-	2.2	-
	Current	I_a	mA	-	200	-

(1) Data measured under operation output at 200W@25°C.

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

(3) Operating temperature defined by the package housing. Acceptable operating range is 20°C~30°C, but performance may vary.

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Package Dimensions (mm)

Pin	Function
1	LD (+)
2	LD (-)
3	Thermistor*
4	Thermistor*
5	Aiming Beam(+)*
6	Aiming Beam(-)*

OPERATING NOTES

- ◆ Avoid eye and skin exposure to direct radiation during operation.
- ◆ ESD precautions must be taken during storage, transportation and operation.
- ◆ Short-circuit is required between pins during storage and transportation.
- ◆ 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 20°C to 30°C .
- ◆ Storage temperature ranges from -20°C to +70°C .

