

Features:

- ♦ 976±1nm wavelength
- ♦ 140W output power
- ♦ 105µm fiber core diameter
- ♦ 0.22 NA
- ♦ 1020nm~1200nm feedback protection

Applications:

- ♦ Fiber Laser Pumping
- ♦ Scientific Research

976nm 140W Wavelength-Stabilized Fiber Coupled Diode Laser RPK976S-N1-140.0W-10522-FF (Standard Product)

Specifications (25°C)		Symbol	Unit	RPK976S-N1-140.0W-10522-FF		
				Minimum	Typical	Maximum
Optical Data ⁽¹⁾	CW Output Power	P _o	W	140.0	-	-
	Center Wavelength	λ _c	nm	976±1		
	Spectral Width (FWHM)	Δλ	nm	-	0.6	1.0
	Wavelength Shift with Temperature	Δλ/ΔT	nm/°C	-	0.02	-
	Wavelength Shift with Current	Δλ/ΔI	nm/A	-	0.03	-
Electrical Data	Electrical-to-Optical Efficiency	PE	%	-	50	-
	Threshold Current	I _{th}	A	-	0.9	-
	Operating Current	I _{op}	A	-	13.0	15.0
	Operating Voltage	V _{op}	V	-	22.5	25.0
	Slope Efficiency	η	W/A	-	11.0	-
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}	°C	-20	-	70
	Lead Soldering Temp	T _{ls}	°C	-	-	260
	Lead Soldering Time	t	sec	-	-	10
	Operating Case Temperature ⁽³⁾	T _{op}	°C	23	25	27
	Relative Humidity	RH	%	15	-	75

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

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

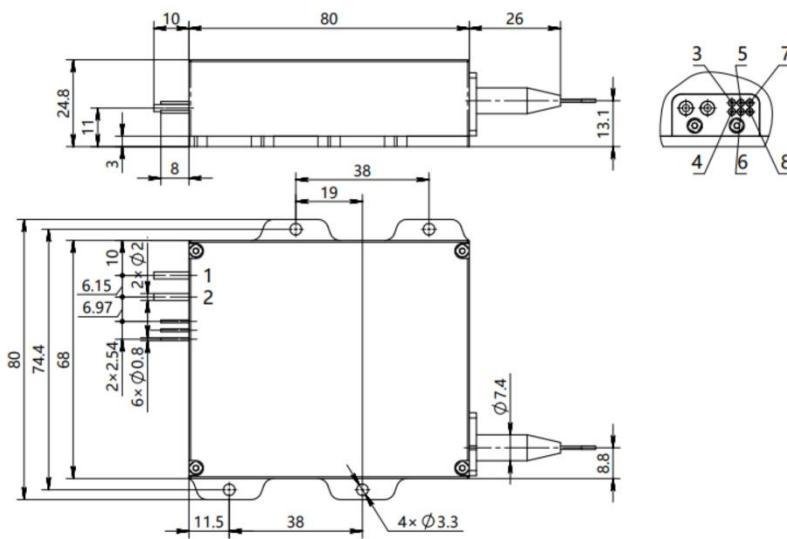
(3) Operating temperature defined by the package case. Acceptable operating range is 23°C~27°C, but performance may vary.

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

976nm 140W Wavelength-Stabilized Fiber Coupled Diode Laser

RPK976S-N1-140.0W-10522-FF(Standard Product)

Package Dimensions (mm)



Pin	Function
1	LD (+)
2	LD (-)
3	-
4	-
5	Thermistor (optional)
6	Thermistor (optional)
7	Photo Diode (P) (optional)
8	Photo Diode (N) (optional)

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°C 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°C to 27°C.
- ◆ The storage temperature range is -20°C to +70°C.



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