

#### Features:

- ♦ 830nm wavelength
- ♦ 1W output power
- ♦ 50μm fiber core diameter
- ♦ 0.14 NA

#### Applications:

- ♦ Cosmetology
- ♦ CTP / CTS
- ♦ Scientific Research

### 830nm 1W Fiber Coupled Diode Laser

**RPK830-02-1.000W-05014-ST**

Specifications (25°C)		Symbol	Unit	RPK830-02-1.000W-05014-ST		
				Minimum	Typical	Maximum
Optical Data <sup>(1)</sup>	CW Output Power	P <sub>o</sub>	W	1.0	-	-
	Center Wavelength	λ <sub>c</sub>	nm	830±10		
	Spectral Width(FWHM)	Δλ	nm	-	6	-
	Wavelength Shift with Temperature	Δλ/ΔT	nm/°C	-	0.3	-
Electrical Data	Electrical-to-Optical Efficiency	PE	%	-	40	-
	Threshold Current	I <sub>th</sub>	A	-	0.2	-
	Operating Current	I <sub>op</sub>	A	-	-	1.5
	Operating Voltage	V <sub>op</sub>	V	-	-	2.0
	Slope Efficiency	η	W/A	-	0.9	-
Fiber Data	Core Diameter	D <sub>core</sub>	μm	-	50	-
	Cladding Diameter	D <sub>clad</sub>	μm	-	125	-
	Numeric Aperture	NA	-	-	0.14	-
	Fiber Length	L <sub>f</sub>	m	-	0.5	-
	Fiber Loose Tubing Diameter	-	mm	0.9		
	Minimum Bending Radius	-	mm	50	-	-
	Fiber Termination	-	-	ST		
Others	ESD	V <sub>esd</sub>	V	-	-	500
	Storage Temperature <sup>(2)</sup>	T <sub>st</sub>	°C	-20	-	70
	Lead Soldering Temp	T <sub>ls</sub>	°C	-	-	260
	Lead Soldering Time	t	sec	-	-	10
	Operating Case Temperature <sup>(3)</sup>	T <sub>op</sub>	°C	15	-	35
	Relative Humidity	RH	%	15	-	75

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

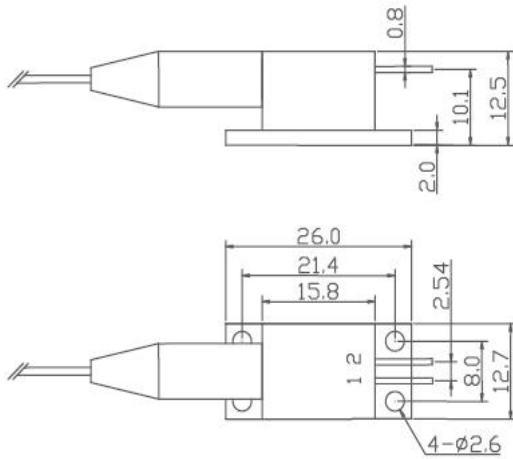
(2) A non-condensing environment is required for operation and storage.

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

## 830nm 1W Fiber Coupled Diode Laser

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### 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 storage, transportation and operation.
- ◆ Short-circuit is required between pins during storage and transportation.  
to the middle of the pins. Soldering temperature should be lower than 260°C and time shorter than 10 second.  
cutting the fiber.
- ◆ 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.



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