

**Features:**

- ◆ 830nm wavelength
- ◆ 600mW output power

**Applications:**

- ◆ Sensing
- ◆ Scientific research
- ◆ Raman spectroscopy
- ◆ Medical

**830nm 600mW Fiber Coupled Diode Laser**

**RPK830-FS-0.600W**

Specifications (25°C)		Symbol	Unit	RPK830-FS-0.600W		
				Minimum	Typical	Maximum
Optical Data <sup>(1)</sup>	CW Output Power	P <sub>o</sub>	mW	600	-	-
	Center Wavelength	λ <sub>c</sub>	nm	830±0.5		
	Spectral Width(FWHM)	Δλ	nm	-	<0.1	-
	Wavelength Shift with Temperature	Δλ/ΔT	nm/°C	-	0.01	-
	Emitter size @Window	-	mm	<1.0*1.0mm		
	Fast Axis Half Divergence Angle	-	°	<0.3		
	Slow Axis Half Divergence Angle	-	°	<1		
Electrical Data	Electrical-to-Optical Efficiency	PE	%	-	30	-
	Threshold Current	I <sub>th</sub>	A	-	0.4	-
	Operating Current	I <sub>op</sub>	A	-	1.1	1.5
	Operating Voltage	V <sub>op</sub>	V	-	1.9	2.2
	Slope Efficiency	η	W/A	-	1.0	-
Thermistor	-	R <sub>t</sub>	(KΩ)/β(25°C)	10±3%/3450		
PD	Current	I <sub>mo</sub>	uA	100		1000
TEC	TEC Max. Current	I <sub>tec</sub>	A	-	-	2.2
	TEC Max. Voltage	V <sub>tec</sub>	V	-	-	8.75
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 600mW@25°C.

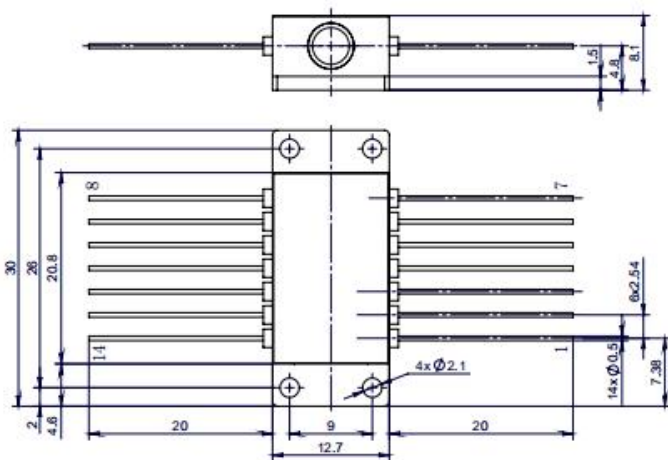
(2) A non-condensing environment is required for operation and storage.

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

## 830nm 600mW Fiber Coupled Diode Laser

### RPK830-FS-0.600W

#### Package Dimensions (mm)



Pin	Function	Pin	Function
1	TEC (+)	8	-
2	Thermistor	9	-
3	PD (+)	10	LD (+)
4	PD (-)	11	LD (-)
5	Thermistor	12	-
6	-	13	Case
7	-	14	TEC (-)

#### 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.



Declaration: information and specifications contained herein are deemed to be reliable and accurate. BWT Beijing Ltd.reserves the right to change, alter or modify the design and specifications of these products at any time without notice.