830nm 600mW Fiber Coupled Semiconductor Laser

RPK830AFLFN-0.600W

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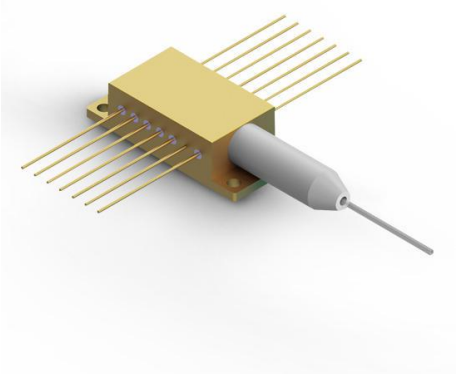

Features:
- Wavelength 830nm
- Output power 600mW
- Fiber core 105μm
- N.A. 0.22 NA

Applications:
- Raman Spectrum
- Sensor Inspection
- Medical Field
- Scientific Research

Spcifications (25℃)		Symbol	Unit	RPK830AFLFN-0.600W		
				Mini.	Typical	Max.
Optical Data (1)	CW Output power	P_O	W	0.6	-	-
	Central Wavelength	λ_c	nm	830±0.5		
	Spectral width(FWHM)	$\Delta\lambda$	nm	-	<0.1	-
	Wavelength shift with Temperature	$\Delta\lambda/\Delta T$	nm/℃	-	0.01	-
Electrical Data	Electrical-to-Optical Efficiency	PE	%	-	30	-
	Threshold Current	I_{th}	A	-	0.3	-
	Operating Current	I_{op}	A	-	1.0	-
	Operating Voltage	V_{op}	V	-	1.8	-
	Slope Efficiency	η	W/A	-	0.9	-
Fiber Data	Core Diameter	D_{core}	μm	-	105	-
	Cladding Diameter	D_{clad}	μm	-	125	-
	Numeric Aperture	NA	-	-	0.22	-
	Fiber length	L_f	m	-	1.0	-
	Fiber Jacket	-	mm	-	0.9	-
	Bending Radius	-	mm	50	-	-
	Connector	-	-	FC		
Thermistor	–	Rt	(KΩ)/β(25℃)	10±3%/3477		
PD Data	Current	I_{mo}	μA	100	-	1000
TEC Data	TEC Max. Current	I_{tec}	A	-	-	2.2
	TEC Max. Voltage	V_{tec}	V	-	-	8.75
Others	ESD	V_{esd}	V	-	-	500
	Storge Temperature(2)	T_{st}	℃	-20	-	70
	Lead Soldering Temp	T_{ls}	℃	-	-	260
	Lead Soldering Time	t	sec	-	-	10
	Operating Case Temperature(3)	T_{op}	℃	20	-	30
	Ralative Humidity	RH	%	15	-	75

(1) All data are tested under the condition of output power 0.6W@25℃;
(2) Please store and use under non-condensing conditions;
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(4) (3) The operating temperature refers to the base plate temperature. The acceptable operating temperature range is 20℃~30℃, but the performance may be slightly different at different temperatures.
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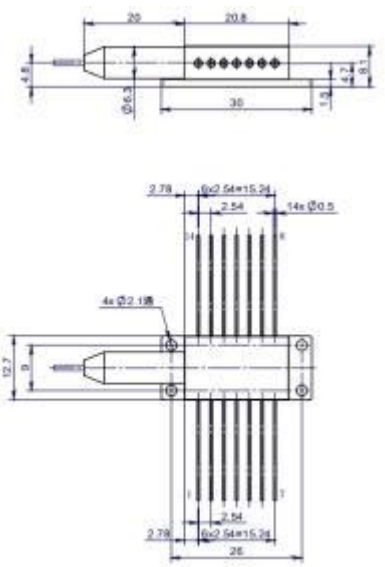
Package Dimensions (mm)



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:

- When the laser is working, avoid laser irradiation of eyes and skin.
- Anti-static measures must be taken during transportation, storage, and use. During transportation and storage, short circuits must be connected between pins for protection.
- For lasers with an operating current above 6A, please use welding to connect the leads. The welding point should be as close to the middle of the pin as possible, the temperature should be lower than 260°C, and the welding time should be less than 10 seconds.
- Before working on the laser, ensure that the fiber output end has been properly cleaned. When handling and cutting fiber optics, follow safety protocols to avoid injury.
- Use constant current power supply to avoid surges during work.
- Should be used under rated current and rated power.
- Good heat dissipation must be ensured when the laser is working.
- Working temperature 20℃~30℃.
- Storage temperature -20℃~+70℃.