

Features :

- ◆ 793nm wavelength
- ◆ 50W output power
- ◆ 106.5µm fiber core diameter
- ◆ 0.22 NA
- ◆ 1900nm~2100nm feedback protection

Applications :

- ◆ Fiber laser pumping

793nm 50W Fiber Coupled Diode Laser
RPK793-A5-50.00W-10522-FF

| Specifications (25°C) | | Symbol | Unit | RPK793-A5-50.00W-10522-FF | | |
|-----------------------------|---|-------------------|------|---------------------------|---------|---------|
| | | | | Minimum | Typical | Maximum |
| Optical Data ⁽¹⁾ | CW Output Power | P _O | W | 50 | - | - |
| | Center Wavelength | λ _c | nm | 793±3 | | |
| | Spectral Width(FWHM) | Δλ | nm | - | 3 | 7 |
| Electrical Data | Electrical-to-Optical Efficiency | PE | % | - | 42 | - |
| | Threshold Current | I _{th} | A | - | 1.3 | - |
| | Operating Current | I _{op} | A | - | 10.0 | 11.0 |
| | Operating Voltage | V _{op} | V | - | 11.0 | 13.2 |
| | Slope Efficiency | η | W/A | - | 5.5 | - |
| Fiber Data | Core Diameter | D _{core} | µm | - | 106.5 | - |
| | 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 | 1900~2100 | | |
| | 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 | 20 | - | 30 |
| | Relative Humidity | RH | % | 15 | - | 75 |

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

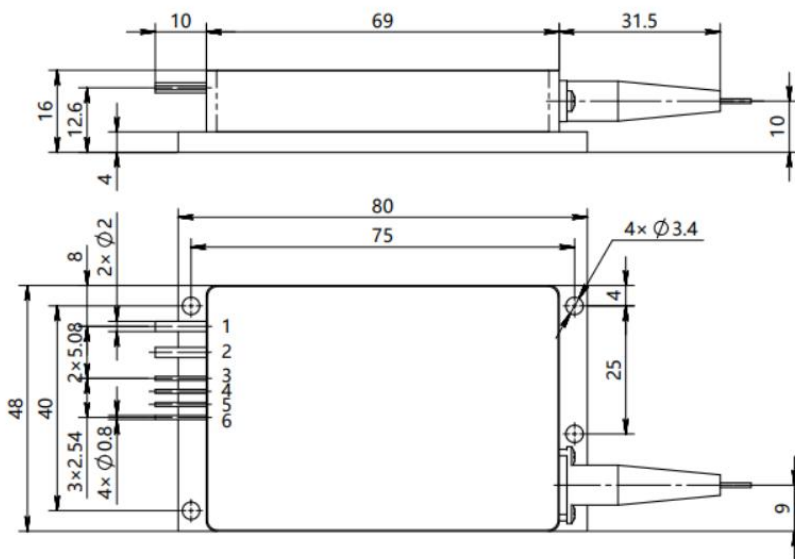
(2) A non-condensing environment is required for operation and storage.

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

793nm 50W Fiber Coupled Diode Laser

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Package Dimensions (mm)



| Pin | Function |
|-----|----------------------|
| 1 | LD (+) |
| 2 | LD (-) |
| 3 | Thermister(Optional) |
| 4 | Thermister(Optional) |
| 5 | PD(P)(Optional) |
| 6 | PD(N)(Optional) |

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 middle 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 .



Declaration: information and specifications contained herein are deemed to be reliable and accurate. BWT Beijing reserves the right to change, alter or modify the design and specifications of these products at any time without notice.21-1