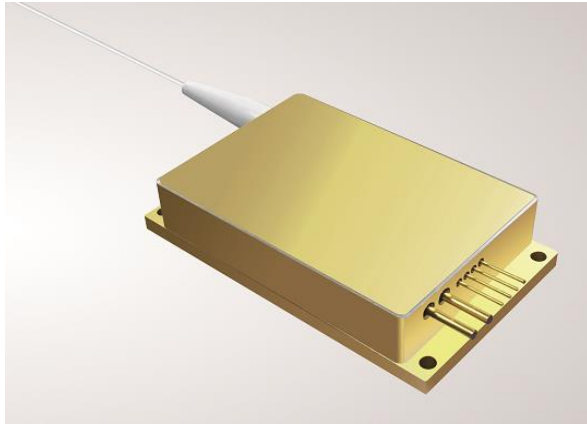


**940nm 70W High Power Fiber Coupled Diode Laser**  
**RPK940-A5-70.00W-10522-NA**



www.rpmclasers.com



**Features:**

- ◆ 940nm wavelength
- ◆ 70W output power
- ◆ 106.5µm fiber core diameter
- ◆ 0.22NA
- ◆ 1040nm~1200nm feedback protection

**Applications:**

- ◆ Laser pumping
- ◆ Medical Use
- ◆ Material Processing

Specifications(25°C)		Symbol	Unit	RPK940-A5-70.00W-10522-NA		
				Minimum	Typical	Maximum
<b>Optical Data<sup>(1)</sup></b>	CW Output Power	P <sub>o</sub>	W	70	-	-
	Center Wavelength	λ <sub>c</sub>	nm	940±10		
	Spectral Width (FWHM)	Δλ	nm	6		
	Wavelength Shift with Temperature	Δλ/ΔT	nm/°C	-	0.3	-
	Wavelength Shift with Current	Δλ/ΔA	nm/A	-	1	-
<b>Electrical Data</b>	Electrical-to-Optical Efficiency	PE	%	-	48	-
	Operating Current	I <sub>op</sub>	A	-	12	13
	Threshold Current	I <sub>th</sub>	A	-	0.9	-
	Operating Voltage	V <sub>op</sub>	V	-	11	12.5
	Slope Efficiency	η	W/A	-	6.5	-
<b>Fiber Data</b>	Core Diameter	D <sub>core</sub>	µm	-	106.5	-
	Cladding Diameter	D <sub>clad</sub>	µm	-	125	-
	Buffer Diameter	D <sub>buf</sub>	µm	-	245	-
	Numerical Aperture	NA	-	-	0.22	-
	Total Fiber Length	L <sub>f</sub>	m	-	2	-
	Fiber Loose Tubing Diameter/Length	-	mm	0.9mm PVC 180cm		
	Minimum Bending Radius	-	mm	50	-	-
	Fiber Termination	-	-	-	None	-
<b>Feedback Isolation</b>	Wavelength Range	λ	nm	1040~1200		
	Isolation	-	dB	-	30	-
<b>Others</b>	ESD	V <sub>esd</sub>	V	-	-	500
	Storage Temperature <sup>(2)</sup>	T <sub>st</sub>	°C	-20	-	70
	Lead Soldering Temp	T <sub>is</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

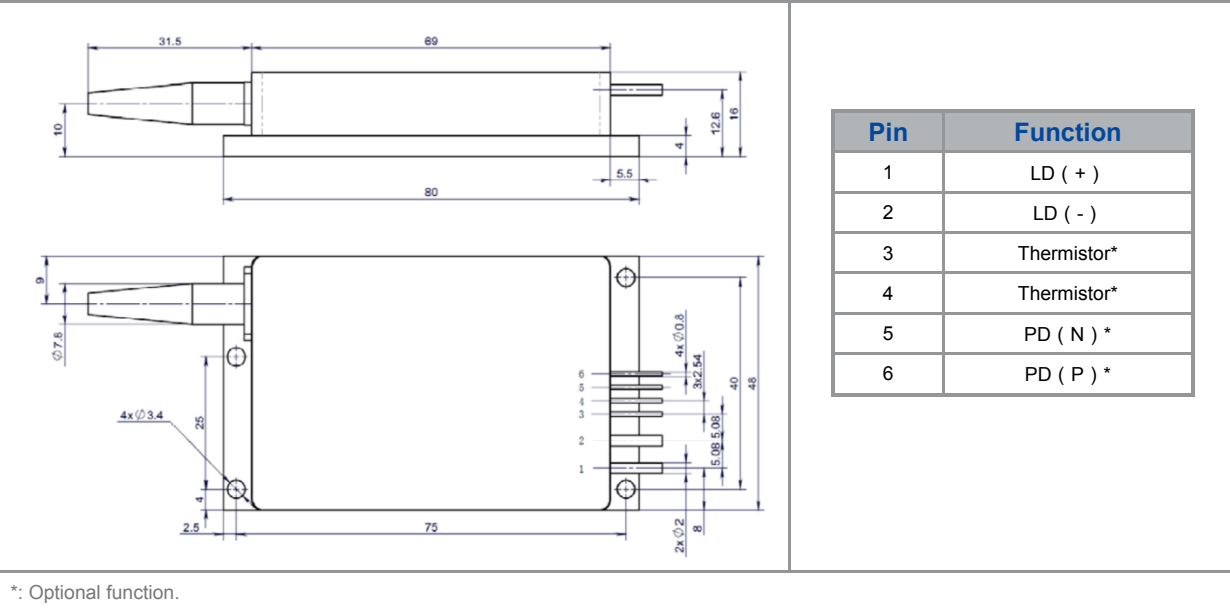
(1) Data measured under operation output at 70W@25°C.

(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.

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**Package Dimensions (mm)**



Pin	Function
1	LD ( + )
2	LD ( - )
3	Thermistor*
4	Thermistor*
5	PD ( N ) *
6	PD ( P ) *

\*: Optional function.

**OPERATING NOTES**

- ◆ Avoid eye and skin exposure to direct radiation during operation.
- ◆ ESD precautions must be taken during storage, transportation and operation.
- ◆ 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 root 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 15°C to 35°C.
- ◆ Storage temperature ranges from -20°C to +70°C.

