

445nm 10W Fiber Coupled Diode Laser

RPK445-MT-10.00W-10522-SM



www.rpmclasers.com



Features:

- ◆ 445nm wavelength
- ◆ 10W output power
- ◆ 105µm fiber core diameter
- ◆ 0.22NA

Applications:

- ◆ Scientific research
- ◆ Material processing
- ◆ 3D printing

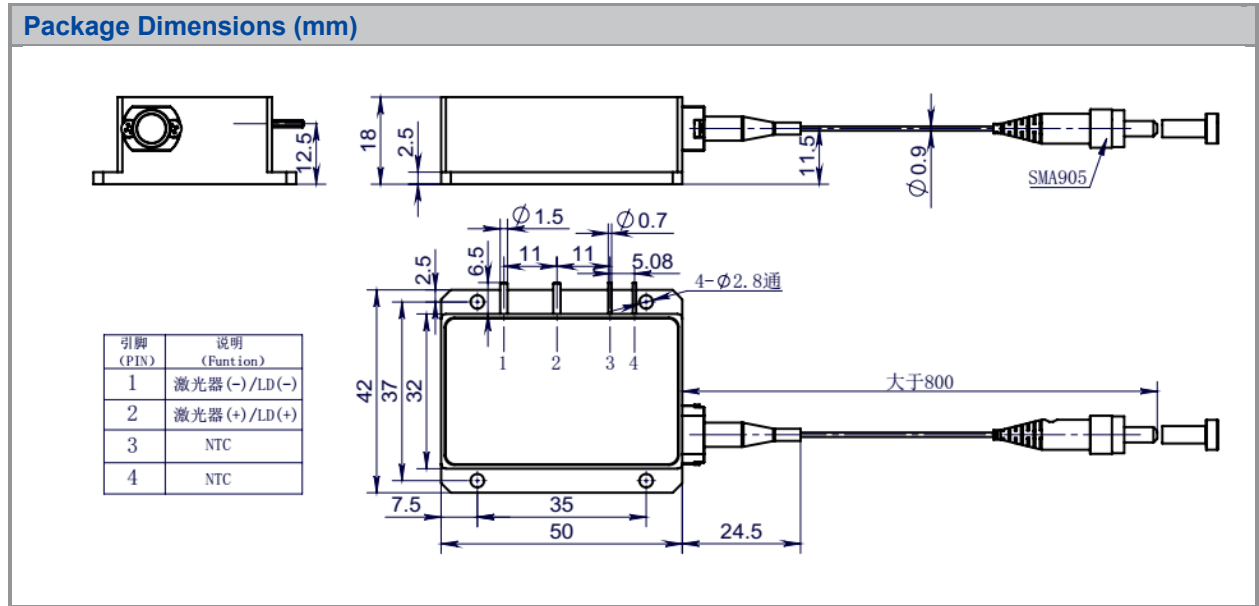
Specifications(20°C)		Symbol	Unit	RPK445-MT-10.00W-10522-SM		
				Minimum	Typical	Maximum
Optical Data& Electrical Data (1)	CW Output Power	P _o	W	10	-	-
	Center Wavelength	λ _c	nm	445±20		
	Electrical-to-Optical Efficiency	PE	%	-	25	-
	Operating Current	I _{op}	A	-	3.5	4
	Threshold Current	I _{th}	A	-	0.4	-
	Operating Voltage	V _{op}	V	-	13	15
Fiber Data	Core Diameter	D _{core}	µm	-	105	-
	Cladding Diameter	D _{clad}	um	-	125	-
	Numerical Aperture	N.A.	-	-	0.22	-
	Total Fiber Length	L _f	m	-	1.0	-
	Fiber Loose Tubing Diameter	-	mm	3mm Stainless Steel		
	Minimum Bending Radius	-	mm	50	-	-
	Fiber Termination	-	-	-	SMA905	-
Others	ESD	V _{esd}	V	-	-	500
	Storage Temperature (2)	T _{st}	°C	-20	-	70
	Lead Soldering Temp	T _{is}	°C	-	-	260
	Lead Soldering Time	t	sec	-	-	10
	Operating Case Temperature (3)	T _{op}	°C	15	-	30
	Relative Humidity	RH	%	15	-	75

(1) Data measured under operation output at 3W@20°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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OPERATING NOTES

- ◆ Avoid eye and skin exposure to direct radiation during operation.
- ◆ ESD precautions must be taken during storage, transportation and operation.
- ◆ Make sure the fiber output end and input 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 .

