905nm 20mW Coaxial Single-Mode Fiber-Coupled Laser

Product Description

The coaxial single-mode fiber-coupled laser is a cost-effective single-mode fiber-coupled laser launched by Idealphotonics. It features a compact package size and high output power. Our products are widely used in laser communication, printing, and medical laser fields.

Product features

Single-mode fiber 、 Coaxial packaging 、 Built-in photodetector 、 Wavelength 905nm

Part Number

MP-FCD-905-20-SA

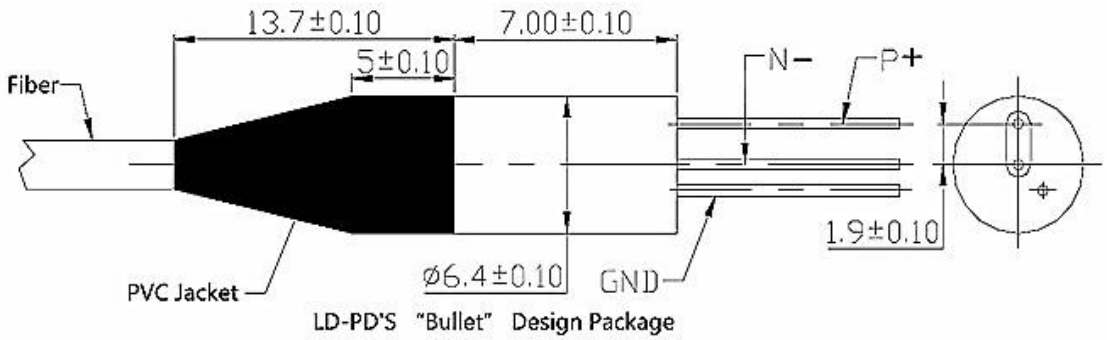
Application area

Medical field 、 Printing 、 Fiber lasers

Core parameters

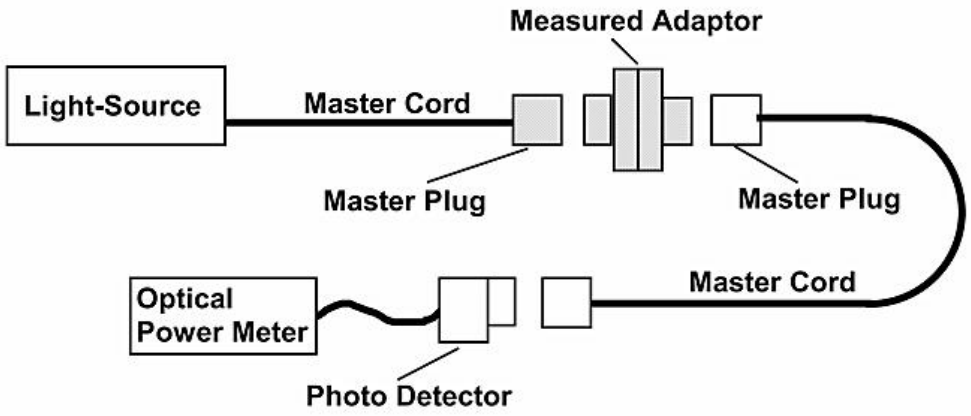
Center Wavelength	Continuous Output Power	Spectral Width
905±5nm	>20mW	0.5-2nm

Dimension Drawing



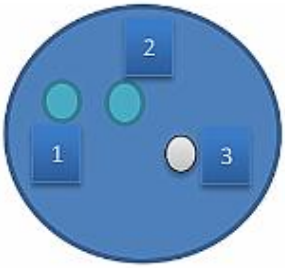
General Parameters

Parameters



Parameters	Value
Center Wavelength (nm)	905±5nm
Continuous Output Power (mW)	>20mw
Spectral Width	0.5-2nm
Fiber Core	6um
Numerical Aperture NA	0.12
Fiber Length	0.8m
Connector	FC/APC
Operating Voltage	1.8-2.3V
Threshold Current	35mA
Maximum Operating Current	165mA
Package Type	Coaxial Package

Pin definition



Bottom View

1	P +
2	N-
3	GND

Parameters	symbol	Unit	Min	Typ	Max	Test condition
Shell temperature	T_{OP}	℃	-5	25	70	
Forward working voltage	V_R	V	1.8	2	2.3	
Axial tension		N	-	-	5N	3x10s
Lateral tension		N	-	-	2.5N	3x10s
Fiber bending radius			16mm			-
Reverse working voltage (LD)	V_{LD}	V	-	-	2	HBM
Welding time		S		-	10s	260℃
Store temperature	T_{STG}	℃	-40	-	+85	2000hr
Operating temperature	T_{OP}	℃	-55	-	+125	
Relative humidity	RH		5%	-	95%	Noncondensing

Precautions:

1. Avoid direct exposure of the laser to the eyes and skin when the laser is working. Even if a very weak laser enters the eyes, it may cause serious damage after the convergence of the eyes.

2. The laser requires a stable driving power supply to avoid surges. The instantaneous reverse current and reverse voltage cannot exceed the limit value, otherwise the components will be damaged.

3. Semiconductor lasers are sensitive to temperature. Working at high temperatures will reduce the conversion efficiency and accelerate the aging of components. They need to be used under sufficient heat dissipation or cooling conditions.

4. The laser should be used at rated current and rated power. Excessive output power will accelerate the aging of components.

5. The laser is an electrostatically sensitive device. Anti-static measures must be taken during transportation, storage and use.

6. The laser should be stored or operated in a dry and ventilated environment to prevent condensation from damaging the laser.

7. The light-emitting surface (cavity surface) is one of the key parts of the laser. Avoid any operation to damage the cavity surface. During the use of the device, ensure that the die is not contaminated and prevent mechanical damage.

8. The optical fiber cannot be bent at a large angle, and the bending diameter must be greater than 300 times the optical fiber diameter.