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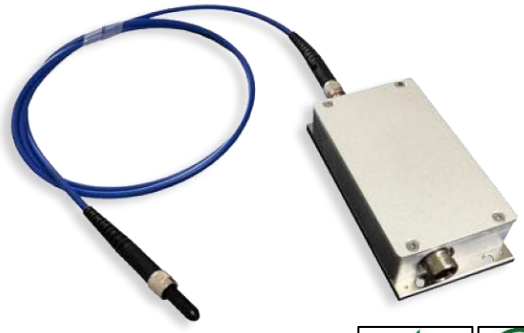
SPM450-20W-200M-H



- **Blue Fiber Coupled Laser Diode**
- **450 nm, 20 W**
- **200 µm Multi Mode Fiber**
- **FC/PC Connector**
- **High Heat Load Package**

RoHS COMPLIANT Pb-Free

Description

SPM450-20M-200M-H is a blue fiber coupled laser diode, typically emitting at 450 nm with an output power of 20 W. It comes in a high heat load package, and features a **200 µm multi-mode fiber** with FC/PC connector. Different fibers and connectors as well as built-in PD and TEC are optionally available.

Maximum Ratings*

Parameter	Symbol	Values Min.	Values Max.	Unit
Reverse Current	I_R		80	mA
Operating Temperature	T_{OPR}	0	+ 60	°C
Storage Temperature	T_{STG}	- 40	+ 85	°C
Soldering Temperature ($t_{max.}$ 3s)	T_{SOL}		+ 260	°C

***** Operating close to or exceeding these parameters may damage the device

Electro-Optical Characteristics (T_{CASE} = 25°C)

Parameter		Symbol	Values Min.	Values Typ.	Values Max.	Unit
Peak Wavelength		λ_P	435	450	465	nm
Spectral Width (FWHM)		$\Delta\lambda$		8.0		nm
Temperature Coefficient		α		0.25		nm/°C
Output Power		P_O		20		W
Operating Voltage		U_F		36	44	V
Threshold Current		I_{th}		0.3	0.5	A
Operating Current		I_O		3.0	3.3	A
Fiber Spec.	Type		Multi-mode			
	Core diameter		200*			µm
	Numerical Aperture [N.A.]		0.22			
	Connector		FC/PC*			
	Length			80*		cm
Built-in Photodiode			optional			
Built-in TEC			optional			

***** FC/APC, SC, SMA905 con., 105µm, 400 µm core diameter, available on request
****** Length of fiber customizable

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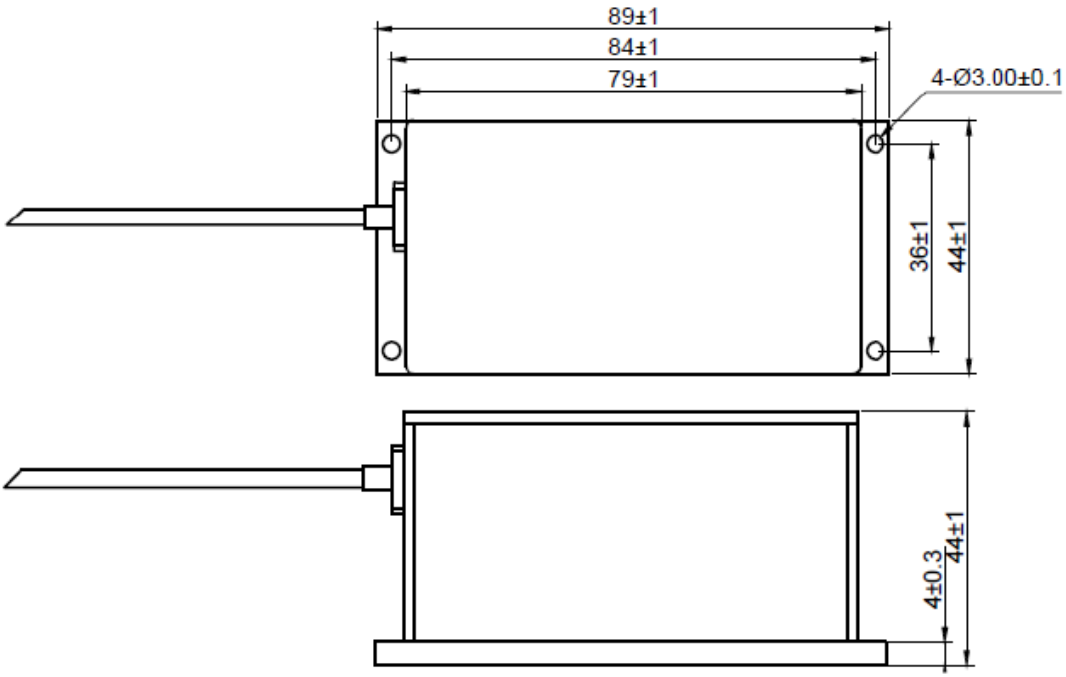
Outline Dimension



All dimensions in mm

Laser head must be mounted on a heat sink with good heat dissipation

Precautions

Safety

Laser light emitted from any laser diode may be harmful to the human eye. **Avoid looking directly into the laser diode's aperture.** The use of optical lenses will increase eye hazard

ESD Caution

Always do handle laser diodes with care to **prevent electrostatic discharge**. We advise to **wearing wrist straps, and grounding all applicable work surfaces**, when handling laser diodes.

Operating Considerations

Usage of current regulated drive circuits is mandatory We advise to operate this laser diode with a current source and heat sink, and to never exceed the maximum specifications as outlined in this datasheet.