ROITHNER LASERTECHNIK GmbH
WIEDNER HAUPTSTRASSE 76 1040 VIENNA AUSTRIA
TEL. +43 1 586 52 43 -0, FAX. -44 OFFICE@ROITHNER-LASER.COM

SPM525-2W5-200M-H

- **Fiber-Coupled Laser Diode Module**
- **525 nm, 2.5 W**
- **200 µm Multimode Fiber**
- **HHL Package**

Description

SPM525-2W5-200M-H is a fiber-coupled laser diode module, typically emitting at 525 nm with an output power of 2.5 W. It comes in a P4 HHL package with 200 µm multimode fiber and FC/PC connector.

Additional options like built-in photodiode, built in TEC, SMA905 or ST fiber connector and stainless steel variant are available on request.

Maximum Rating

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 (max. 3s)	T_{SOL}		+ 260	°C

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

Parameter		Symbol	Values Min.	Values Typ.	Values Max.	Unit
Peak Wavelength		λ_P	510	525	535	nm
Output Power		P_O		2.5		W
Spectral Width (FWHM)		$\Delta\lambda$		6		nm
Temperature Coefficient				0.3		nm/°C
Operating Voltage		V_F		20	24	V
Threshold Current		I_{th}		0.3	0.5	A
Operating Current		I_F		1.8	2.0	A
Fiber	Type		Multimode			
	Core		200			µm
	Numerical Aperture		0.22			
	Connector *		FC/PC			
	Length		80			cm

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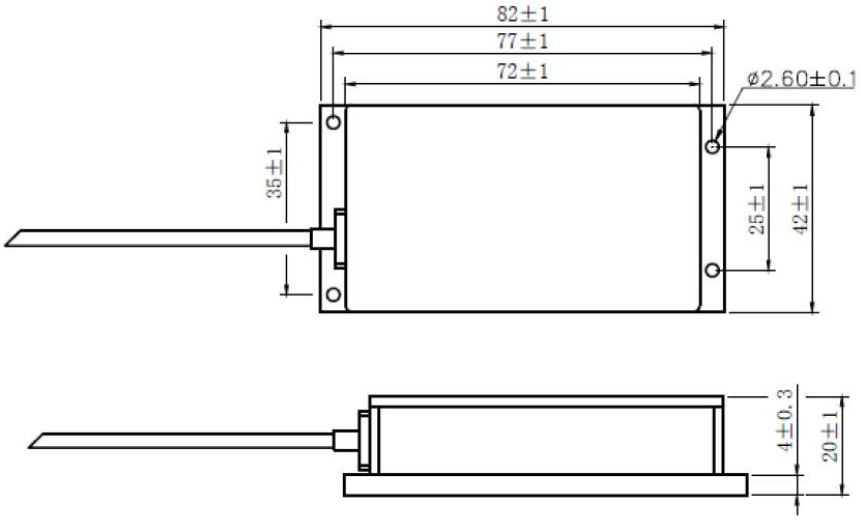
Outline Dimension



All dimensions in mm

Precautions

Safety

Caution: Laser light emitted from any laser diode may be harmful to the human eye. Avoid looking directly into the laser diode's aperture when the diode is in operation.

Note: The use of optical lenses with this laser diode will increase eye hazard

ESD Caution

Always do handle laser diodes with extreme care to **prevent electrostatic discharge**, the primary cause of unexpected diode failure. To prevent ESD related failures we strongly advise to always **wearing wrist straps**, and **grounding all applicable work surfaces**, when handling laser diodes

Operating Considerations

We strongly advise to only operate this laser diode with a current source. The current of a laser diode is an exponential function of the voltage across it. **Usage of current regulated drive circuits is mandatory**.
Laser diodes may be damaged by excessive drive currents or switching transients

It is advised, to operate the laser diode at the lowest temperature possible, and to never exceed maximum specifications as outlined in the datasheet. Device degradation will accelerate with increased temperature. **Proper heat sinking will greatly enhance stability and life-time of the laser diode.**