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

SPM915-10W-105M-2P

- **Fiber-Coupled Laser Diode Module**
- **915 nm, 10 W**
- **105 µm Multimode Fiber**

Description

SPM915-10W-105M-2P is an infrared fiber-coupled laser diode module, typically emitting at 915 nm with an output power of 10 W. It comes in a 2-pin package with 105 µm multimode fiber and FC/PC connector.

Additional options like alternative fiber core size and connector are available on request.

Maximum Rating (T_{CASE} = 25°C)

Parameter	Symbol	Values		Unit
		Min.	Max.	
Reverse Voltage	V_R		2.0	V
Operating Temperature	T_{OPR}	+ 10	+ 30	°C
Storage Temperature	T_{STG}	- 20	+ 80	°C
Soldering Temperature (max. 3s)	T_{SOL}		+ 260	°C

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

Parameter		Symbol	Values			Unit
			Min.	Typ.	Max.	
Peak Wavelength *		λ_P	905	915	925	nm
Output Power		P_O		10		W
Spectral Width (FWHM)		$\Delta\lambda$		4.0		nm
Temperature Coefficient				0.3		nm/°C
Threshold Current		I_{th}		0.5	1.0	A
Operating Current		I_F		11.5	12.5	A
Operating Voltage		V_F		1.8	2.3	V
Fiber	Type		Multimode			
	Core		105			µm
	Numerical Aperture		0.22			
	Connector *		FC/PC			
	Length		80			cm

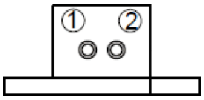
** optional: ST, SC, SMA905*

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

Electrical Connection

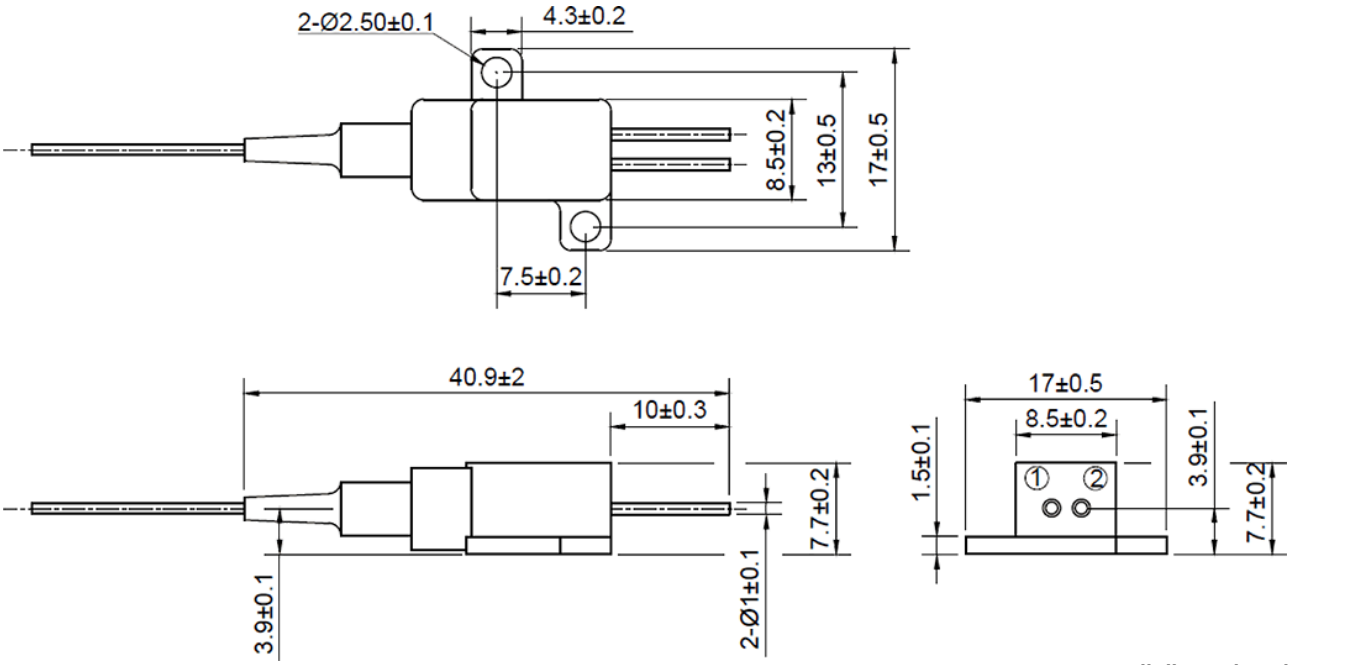
Pin Configuration*	
PIN #	**Function**
1	LD Anode
2	LD Cathode

Connector



* subject to change

Outline Dimension



All dimensions in mm

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

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.**