



ROITHNER LASERTECHNIK GmbH

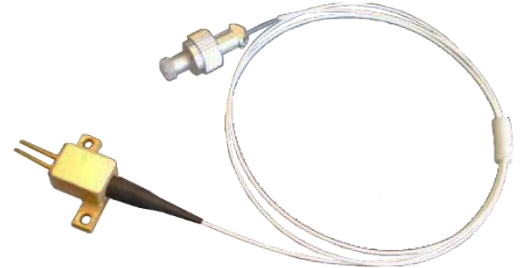
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SPM1310-1W2-105M-2P

- IR Pigtailed Laser Diode
- 1310±30 nm, 1 W
- 105 µm Multi Mode Fiber
- FC/PC Connector
- 2-Pin Heat Load Package



Description



SPM1310-1W2-105M-2P is an infrared pigtailed laser diode, typically emitting at 1310 nm with an output power of 1.2 W. It comes in a 2-pin heat load package, and **105 µm multi-mode fiber** with FC/PC connector. Different fibers and connectors as well as built-in PD and TEC are optionally available.

Maximum Rating

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

Electro-Optical Characteristics ($T_{CASE} = 25^\circ\text{C}$)

Parameter	Symbol	Values			Unit
		Min.	Typ.	Max.	
Peak Wavelength	λ_P	1280	1310	1340	nm
Spectral Width (FWHM)	$\Delta\lambda$		8.0		nm
Output Power	P_O	1.0	1.2		W
Operating Voltage	V_F		1.4	1.6	V
Threshold Current	I_{th}		0.4	0.7	A
Operating Current	I_O		3.3	3.5	A
Fiber Spec.	Type		Multi-mode		
	Core diameter		105*		µm
	Numerical Aperture (N.A.)		0.22		
	Connector		FC/PC*		
	Length		80		cm
Built-in Photodiode			optional		
Built-in TEC			optional		

* SC or SMA905 con., 200µm or 400 µm core diameter available on request

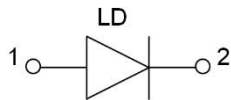




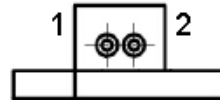
Electrical Connection

Pin Configuration*

Pin #	Function
Pin 1	LD Anode
Pin 2	LD Cathode

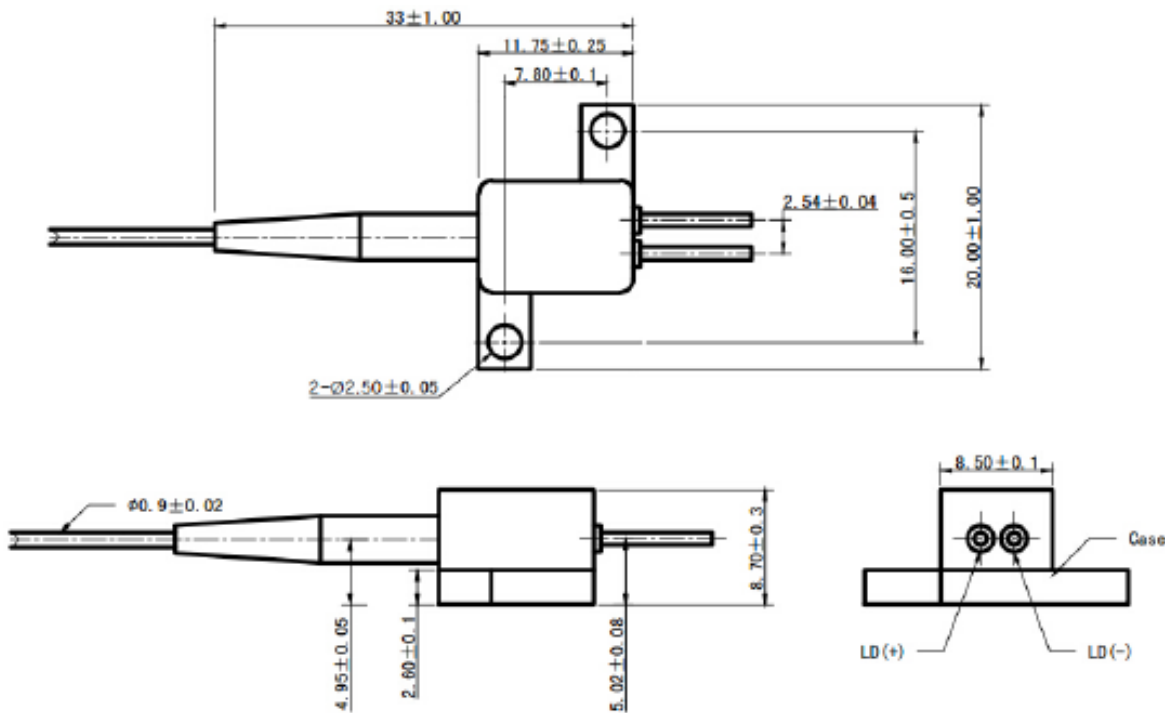


PIN Bottom View



* subject to change

Outline Dimension



All dimensions in mm

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.

