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

SPM1470-2W5-105M-2P

- **IR Pigtailed Laser Diode**
- **1470 nm, >2 W**
- **105 µm Multi Mode Fiber**
- **FC/PC Connector**
- **2-Pin Heat Load Package**

RoHS COMPLIANT Pb Pb-Free

Description

SPM1470-2W5-105M-2P is an infrared pigtailed laser diode, typically emitting at 1470 nm with an output power of >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 Ratings

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°C)

Parameter		Symbol	Values			Unit
			Min.	Typ.	Max.	
Peak Wavelength		λ_P	1440	1470	1500	nm
Spectral Width (FWHM)		$\Delta\lambda$		10		nm
Recommended Case Temperature		**T_C**		**25**		**°C**
Temperature Coefficient		$\Delta\lambda/\Delta T$		0.7		nm/°C
Output Power		P_O	2.0	2.5		W
Operating Voltage		V_F		1.9	2.4	V
Threshold Current		I_{th}		0.5	0.8	A
Operating Current		I_O		9.0	11.0	A
Fiber Spec.	Type			Multi-mode		
	Core diameter			105*		µm
	Numerical Aperture (N.A.)			0.22		
	Connector			FC/PC*		
	Length			80		cm

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

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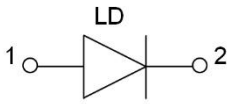
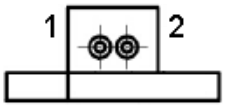
Electrical Connection

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

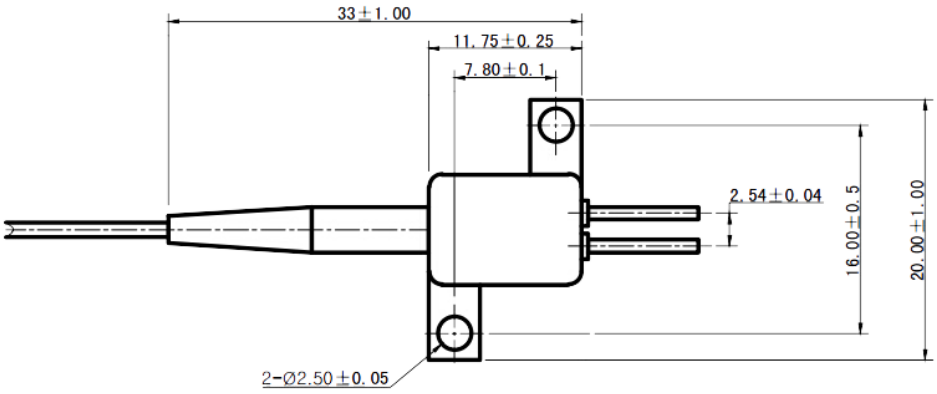
* subject to change

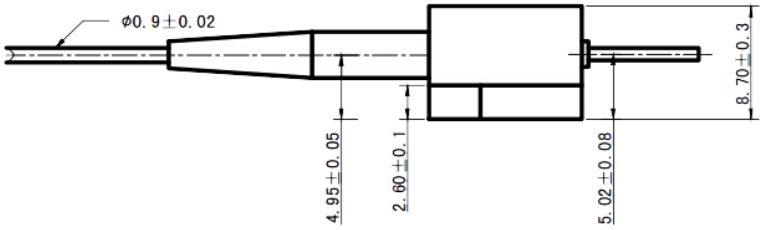


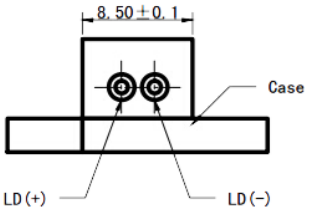
PIN Bottom View



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.