



SPL785-50-105M-PD

- IR Pigtailed Laser Diode
- 785 nm, 50 mW
- 105 μm MM Fiber
- FC/PC Connector
- Integrated Monitor PD



Description

SPL785-50-105M-PD is an infrared pigtailed laser diode, typically emitting at 785 nm with an output power of 50 mW and integrated monitor photodiode. It comes in a coaxial package with heat sink, and **105 μm multi-mode fiber** with FC/PC connector. Variants without heat sink and different types of connectors are optionally available.

Maximum Ratings

Parameter	Symbol	Values		Unit
		Min.	Max.	
Reverse Voltage	U_R		2.0	V
PD Reverse Voltage	U_{RP}		30	V
Operating Temperature	T_{OPR}	- 10	+ 60	$^{\circ}\text{C}$
Storage Temperature	T_{STG}	- 40	+ 85	$^{\circ}\text{C}$
Soldering Temperature (max. 3s)	T_{SOL}		+ 260	$^{\circ}\text{C}$

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

Parameter	Symbol	Values			Unit
		Min.	Typ.	Max.	
Peak Wavelength	λ_P	775	785	795	nm
Spectral Width	λ_D		2.0		nm
Output Power	P_O		50		mW
Operating Voltage	U_F		2.0	2.5	V
Threshold Current	I_{th}		25	55	mA
Operating Current	I_O		110	130	mA
Monitor Current	I_M		0.3		mA
Fiber Spec.	Type	Multi-Mode			
	N.A.	0.22			
	Core diameter	105			μm
	Connector	FC/PC*			
	Length	80			cm

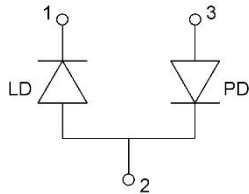
*SC / SMA905 available on request



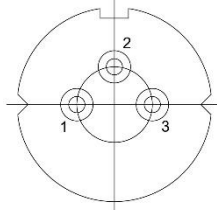
Electrical Connection

Pin Configuration*

Pin #	Function
Pin 1	LD cathode
Pin 2	LD anode, PD cathode
Pin 3	PD anode

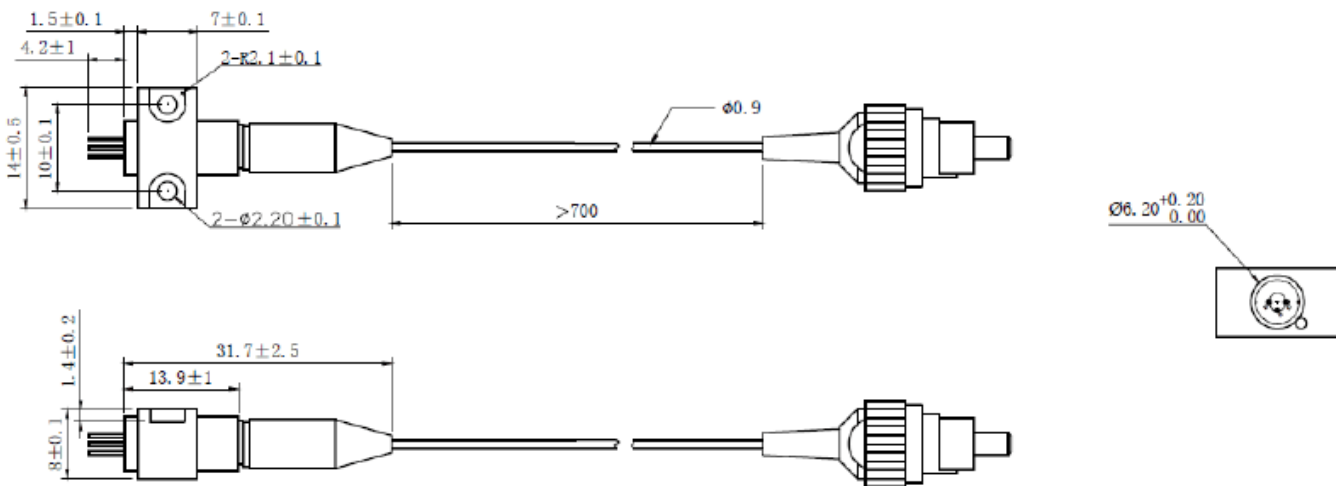


Bottom View



* 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.



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