



SPL785-50-PM-PD

- IR Pigtailed Laser Diode
- 785 nm, 50 mW
- 5 μ m Pol. Maintaining Fiber
- FC/APC Connector
- Integrated Monitor PD
- Heat Sink



Description

SPL785-50-PM-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 **5 μ m polarization maintaining fiber** with FC/APC connector. A variant without heat sink is optionally available.

Maximum Rating

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

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

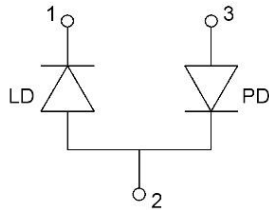
Parameter	Symbol	Values			Unit
		Min.	Typ.	Max.	
Peak Wavelength	λ_P	770	785	795	nm
Output Power	P_O		50		mW
Spectral Width	$\Delta\lambda$		2.0		nm
Operating Voltage	V_F		2.0	2.5	V
Threshold Current	I_{th}		30	50	mA
Operating Current	I_O		120	140	mA
Monitor Current	I_M		0.3		mA
Fiber Spec.	Type	Polarization Maintaining			
	Pol. extinction ratio	13	15		dB
	Core diameter		5		μ m
	N.A.		0.12		
	Connector		FC/APC		
	Length		80		cm



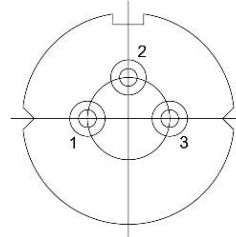
Electrical Connection

Pin Configuration*

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

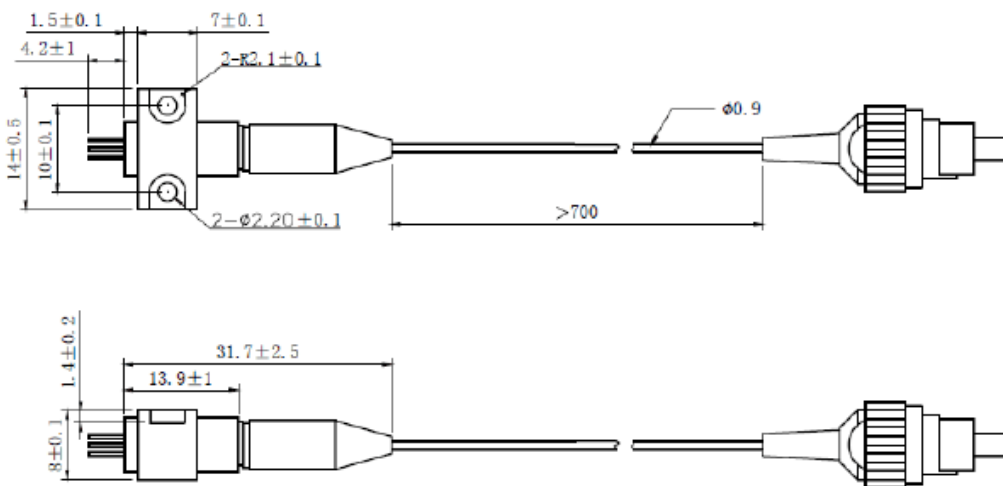


Bottom View



* 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.

