



SPL1550-10-9-PD

- IR Pigtailed DFB Laser Diode
- 1550 nm, 10 mW
- Bandwidth >2.5 GHz
- 9 μm Single Mode Fiber
- FC/PC Connector
- Integrated Monitor PD



Description



SPL1550-10-9-PD is an infrared pigtailed DFB laser diode, typically emitting at 1550 nm with an output power of 10 mW, and integrated monitor photodiode. It comes in a coaxial package with heat sink, and **9 μm single mode fiber** with FC/PC connector. Variants without heat sink and different connectors are optionally available.

Maximum Rating

Parameter	Symbol	Values		Unit
		Min.	Max.	
Reverse Voltage	V_R		2.0	V
PD Reverse Voltage	V_{RP}		15	V
Operating Temperature	T_{OPR}	- 40	+50	$^{\circ}\text{C}$
Storage Temperature	T_{STG}	- 40	+ 100	$^{\circ}\text{C}$
Soldering Temperature (max. 3s)	T_{SOL}		+ 260	$^{\circ}\text{C}$

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

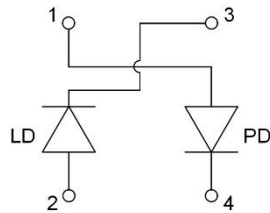
Parameter	Symbol	Values			Unit
		Min.	Typ.	Max.	
Peak Wavelength	λ_P	1540	1550	1560	nm
Output Power	P_O		5		mW
Spectral Width	$\Delta\lambda$			2	nm
Operating Voltage	V_F		1.4	1.7	V
Threshold Current	I_{th}		5	15	mA
Operating Current	I_O		80	100	mA
Bandwidth	f	2.5			GHz
Monitor Current	I_M	0.1			mA
Fiber Spec.	Type	Single Mode			
	Core diameter		9		μm
	N.A.		0.12		
	SMSR		35		dB
	Connector		FC/PC		
	Length		80		cm



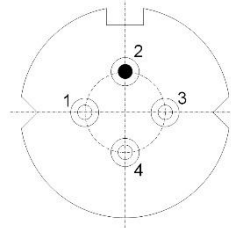
Electrical Connection

Pin Configuration*

Pin #	Function
Pin 1	PD Anode
Pin 2	LD Anode, Ground
Pin 3	LD Cathode
Pin 4	PD Cathode

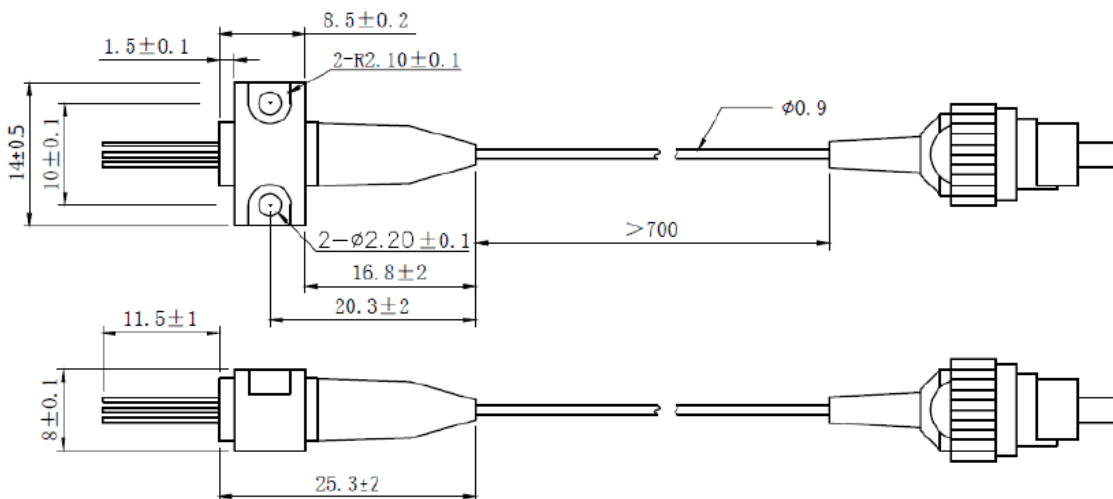


Bottom View



* 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.

