



SPL1550-2-C9-PDI

- IR Pigtailed DFB Laser Diode
- 1550 nm, 2 mW
- Bandwidth >2.5 GHz
- 9 μm Single Mode Fiber
- Optical Isolator
- Integrated Photodiode



Description

SPL1550-2-C9-PDI is an infrared pigtailed **DFB** laser diode, typically emitting at 1550 nm with an output power of 2 mW, and **integrated monitor photodiode**. It comes in a coaxial package with **9 μm single mode fiber** with FC/PC connector, and **built-in optical isolator**. Different connectors and fiber receptacle variants 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	+ 85	$^{\circ}\text{C}$
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		2		mW
Spectral Width	$\Delta\lambda$		0.3	1	nm
Operating Voltage	V_F		1.4	1.7	V
Threshold Current	I_{th}		5	15	mA
Operating Current	I_O		30	35	mA
Bandwidth	f	2.5			GHz
PD Current	I_M	0.1			mA
Optical Isolation			30		dB
Fiber Spec.	Type	Single Mode			
	Core diameter		9		μm
	N.A.		0.12		
	SMSR		35		
	Connector		FC/PC*		
	Length		80		cm

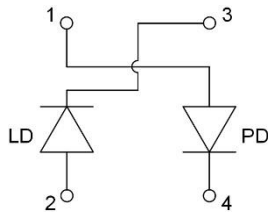




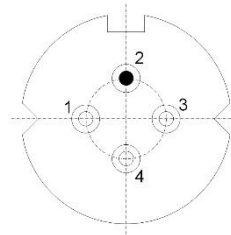
Electrical Connection

Pin Configuration*

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

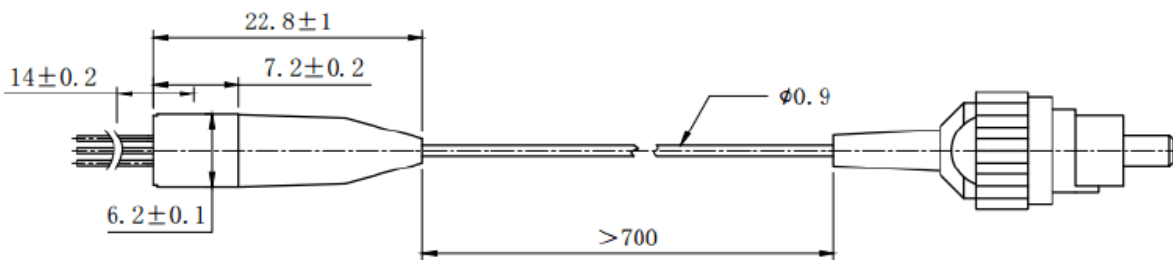


Bottom View



* 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.



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