



SPL1550-5-PM-PDI

- IR Pigtailed DFB Laser Diode
- 1550 nm, 5 mW
- Bandwidth >2.5 GHz
- 9 μm Pol. Maintaining Fiber
- Optical Isolator
- FC/APC Connector
- Integrated Monitor PD



Description

SPL1550-5-PM-PDI is an infrared pigtailed DFB laser diode, typically emitting at 1550 nm with an output power of 5 mW, integrated monitor photodiode and **optical isolator**. It comes in a coaxial package with heat sink, and **9 μm 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}		15	V
Operating Temperature	T_{OPR}	- 20	+ 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	$\Delta\lambda$		0.3	1.0	nm
Operating Voltage	V_F		1.4	1.7	V
Threshold Current	I_{th}		5	15	mA
Operating Current	I_O		70	80	mA
Bandwidth	f	2.5			GHz
Monitor Current	I_M		/		mA
Fiber Spec.	Type	Polarization Maintaining			
	Pol. extinction ratio	13	15		dB
	Optical isolation		30		dB
	Core diameter		9		μm
	Connector		FC/APC		
	Length		80		cm

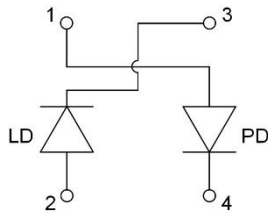




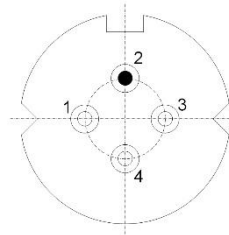
Electrical Connection

Pin Configuration*

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

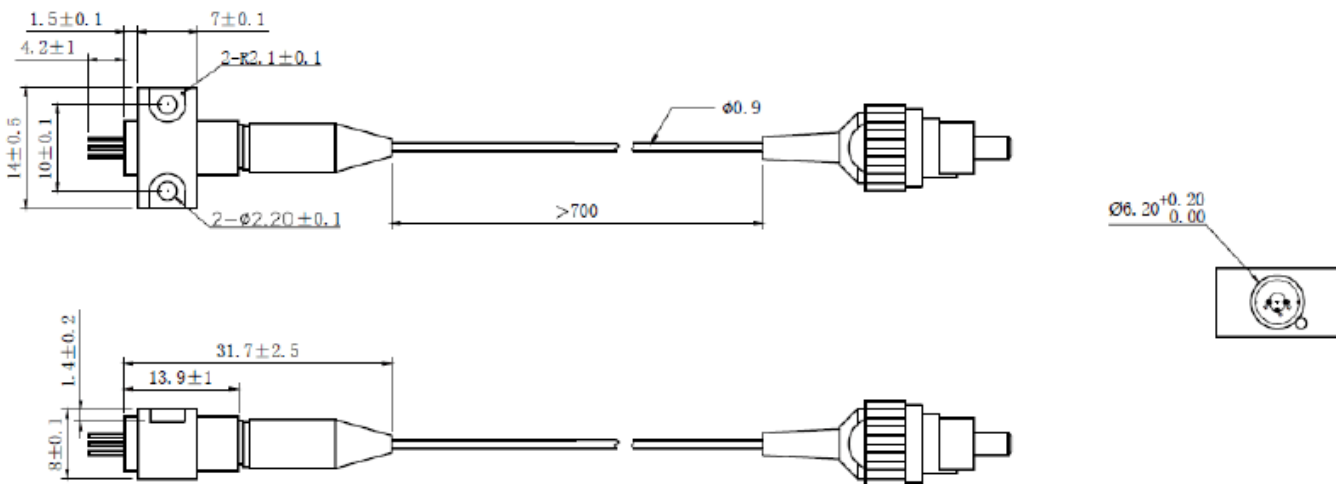


Bottom View



* 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.

