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SPL650-10-PM-PD

- **Red Pigtailed Laser Diode**
- **658 nm, 10 mW**
- **4 µm Polarization Maintaining Fiber**
- **FC/APC connector**
- **Built-in PD**
- **Heat Sink**

Description

SPL650-10-PM-PD is a red pigtailed laser diode with **bult-in monitor photodiode**, typically emitting at 658 nm with an output power of 10 mW. It comes in a coaxial package with integrated heat sink, and **4 µm polarization maintaining fiber** with FC/APC connector. Variants without heat sink and different types of connectors are optionally available.

Maximum Ratings*

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

* Operating close to or exceeding these parameters may damage the device

Electro-Optical Characteristics (T_{CASE} = 25°C)

Parameter		Symbol	Values			Unit
			Min.	Typ.	Max.	
Peak Wavelength		λ_P	650	658	668	nm
Spectral Width		λ_Δ		2		nm
Output Power		P_O		10		mW
Operating Voltage		V_F		2.7	3.2	V
Threshold Current		I_{th}		45	70	mA
Operating Current		I_O		100	120	mA
PD Monitor Current		I_{PD}		0.3		mA
Fiber Spec.	Type			PM Fiber		
	Core diameter			4		µm
	Pol. Extinction Ratio		13	15		dB
	N.A.			0.12		
	Connector			FC/APC		
	Length			80		cm

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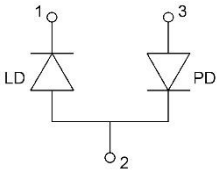
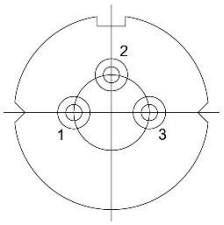
Electrical Connection

Pin Configuration*	
Pin #	**Function**
Pin 1	LD cathode
Pin 2 [case]	LD anode, PD cathode
Pin 3	PD anode

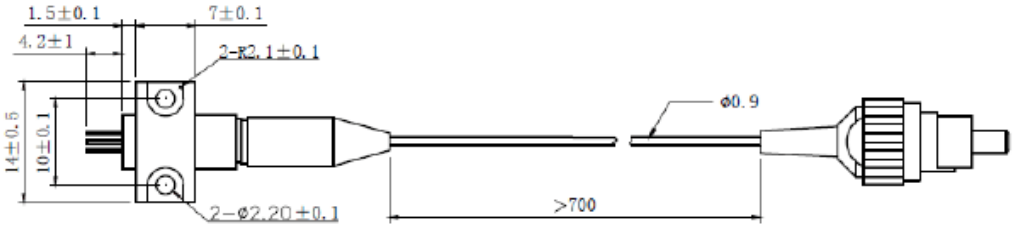
* subject to change

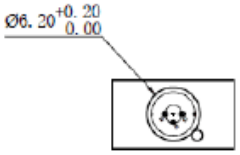


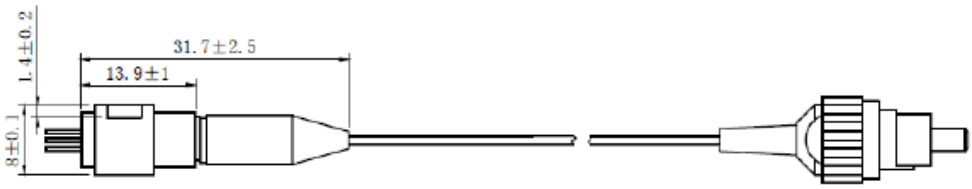
Bottom View



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.