



## SPL635-10-9-PD

- Red Pigtailed Laser Diode
- 638 nm, 10 mW
- 9  $\mu\text{m}$  SM Fiber
- FC/PC connector
- Built-in PD
- Heat Sink



### Description

**SPL635-10-9-PD** is a red pigtailed laser diode with **built-in monitor photodiode**, typically emitting at 638 nm with an output power of 10 mW. It comes in a coaxial package with integrated heat sink, and **9  $\mu\text{m}$  single mode fiber** with FC/PC 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	+ 50	$^{\circ}\text{C}$
Storage Temperature	$T_{STG}$	- 40	+ 85	$^{\circ}\text{C}$
Soldering Temperature ( $t_{max}$ , 3s)	$T_{SOL}$		+ 260	$^{\circ}\text{C}$

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

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

Parameter	Symbol	Values			Unit
		Min.	Typ.	Max.	
Peak Wavelength	$\lambda_P$	630	638	645	nm
Spectral Width	$\lambda_{\Delta}$		2		nm
Output Power	$P_O$		10		mW
Operating Voltage	$U_F$		2.4	3.0	V
Threshold Current	$I_{th}$		40	65	mA
Operating Current	$I_O$		90	110	mA
PD Monitor Current	$I_{PD}$		0.3		mA
Fiber Spec.	Type		SMF-28		
	Core diameter		9		$\mu\text{m}$
	N.A.		0.12		
	Connector		FC/PC*		
	Length		80		cm

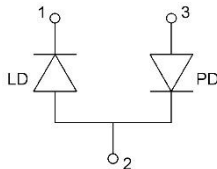
\* FC/APC, SC, SMA905 available on request



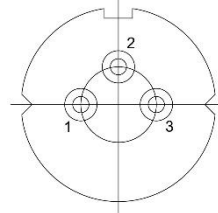
## Electrical Connection

### Pin Configuration\*

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

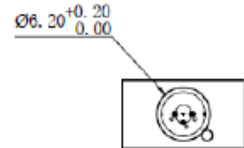
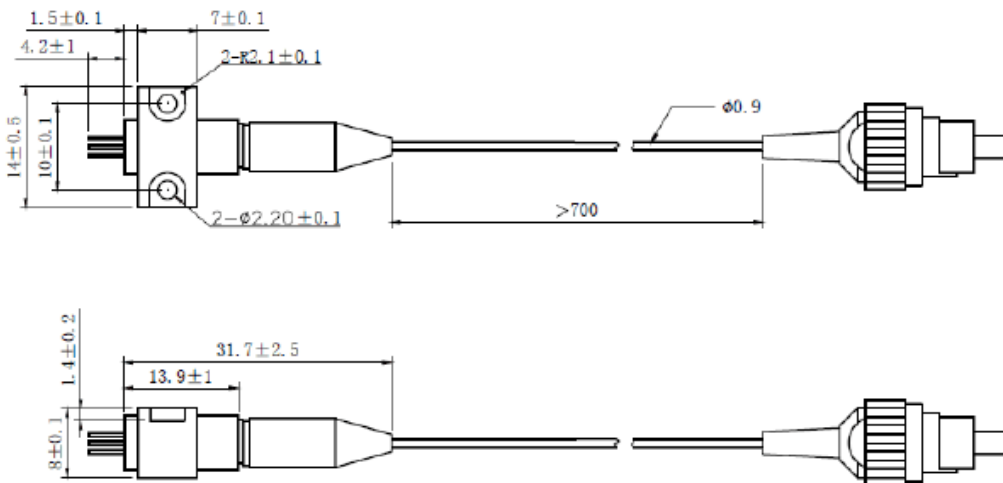


### Bottom View



\* 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.

