



ROITHNER LASERTECHNIK GmbH

WIEDNER HAUPTSTRASSE 76
TEL. +43 1 586 52 43 -O. FAX. -44

1040 VIENNA AUSTRIA
OFFICE@ROITHNER-LASER.COM



SPL650-5-4-PD

- Red Pigtailed Laser Diode
- 658 nm, 5 mW
- 4 μm SM Fiber
- FC/PC connector
- Built-in PD
- Heat Sink



Description

SPL650-5-4-PD is a red pigtailed laser diode with **built-in monitor photodiode**, typically emitting at 658 nm with an output power of 5 mW. It comes in a coaxial package with integrated heat sink, and 4 μm **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	+ 70	$^{\circ}\text{C}$
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	λ_P	650	658	668	nm
Spectral Width	λ_{Δ}		2		nm
Output Power	P_O		5		mW
Operating Voltage	V_F		2.4	3.0	V
Threshold Current	I_{th}		35	50	mA
Operating Current	I_O		65	80	mA
PD Monitor Current	I_{PD}		0.3		mA
Fiber Spec.	Type		Single Mode		
	Core diameter		4		μm
	N.A.		0.12		
	Connector		FC/PC*		
	Length		80		cm

* FC/APC, SC, SMA905 available on request



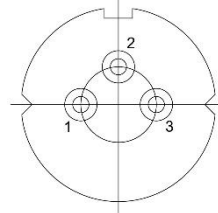
Electrical Connection

Pin Configuration*

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

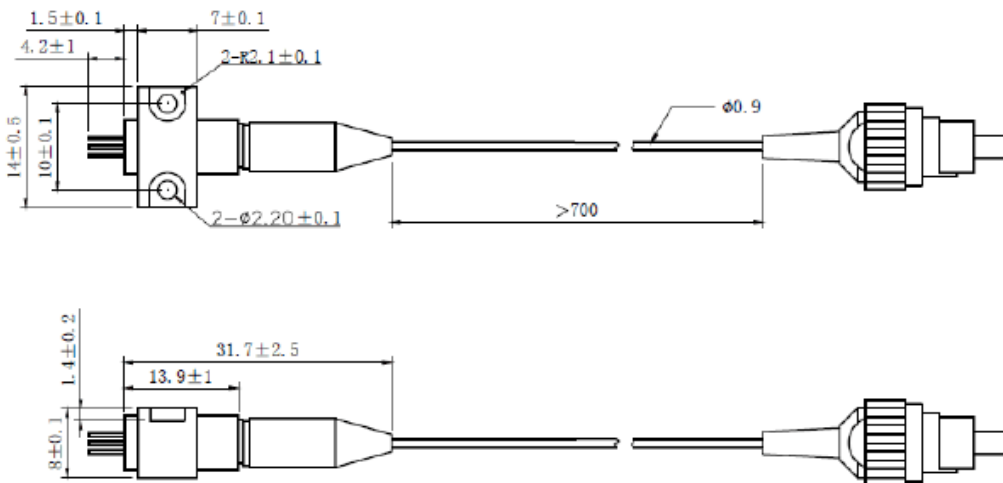


Bottom View



* 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.

