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SPL405-40-3-PD

- **Violet Pigtailed Laser Diode**
- **405 nm, 40 mW**
- **3 µm SM Fiber**
- **FC/PC connector**
- **Heat Sink**

RoHS COMPLIANT Pb Pb-Free

Description

SPL405-40-3-PD is a violet pigtailed laser diode, typically emitting at 405 nm with an output power of 40 mW. It comes in a coaxial package with integrated heat sink, and **3 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	°C
Storage Temperature	T_{STG}	- 40	+ 85	°C
Soldering Temperature ($t_{max.}$ 3s)	T_{SOL}		+ 260	°C

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

Parameter		Symbol	Values			Unit
			Min.	Typ.	Max.	
Peak Wavelength		λ_P	395	405	415	nm
Spectral Width		λ_Δ		2.0		nm
Output Power		P_O		40		mW
Operating Voltage		V_F		5.0	6.0	V
Threshold Current		I_{th}		40	80	mA
Operating Current		I_O		120	140	mA
PD Monitor Current		I_{PD}		0.3		mA
Fiber Spec.	Type		Single Mode			
	Core diameter		3			µm
	N.A.		0.12			
	Connector		FC/PC*			
	Length			80		cm

***** SC / SMA905 con. available on request

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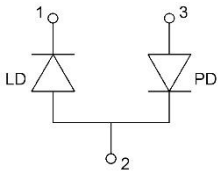
Electrical Connection

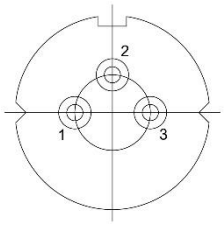
Pin Configuration*

Pin #	Function
Pin 1	LD cathode
Pin 2	LD anode, PD cathode
Pin 3	PD anode

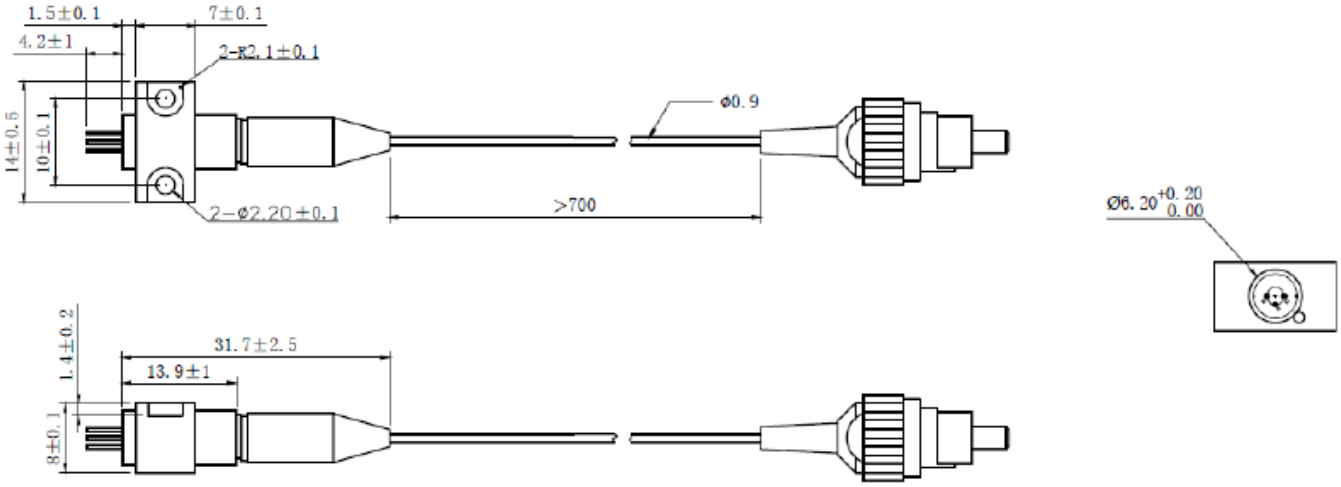
* subject to change



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.