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SPL405-50-3-PD

- **Violet Pigtailed Laser Diode**
- **405 nm, 50 mW**
- **3 µm SM Fiber**
- **FC/PC connector**
- **Heat Sink**

Description

SPL405-50-3-PD is a violet pigtailed laser diode, typically emitting at 405 nm with an output power of 50 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 Min.	Values Max.	Unit
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 Min.	Values Typ.	Values Max.	Unit
Peak Wavelength		λ_P	395	405	415	nm
Spectral Width		λ_Δ		2.0		nm
Output Power		P_O		50		mW
Operating Voltage		V_F		5.0	6.0	V
Threshold Current		I_{th}		45	80	mA
Operating Current		I_O		125	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

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

ATTENTION
STATIC SENSITIVE DEVICES
HANDLE ONLY AT
STATIC WORK STATIONS
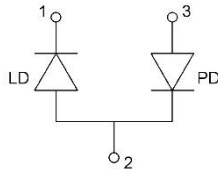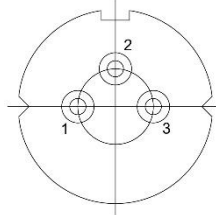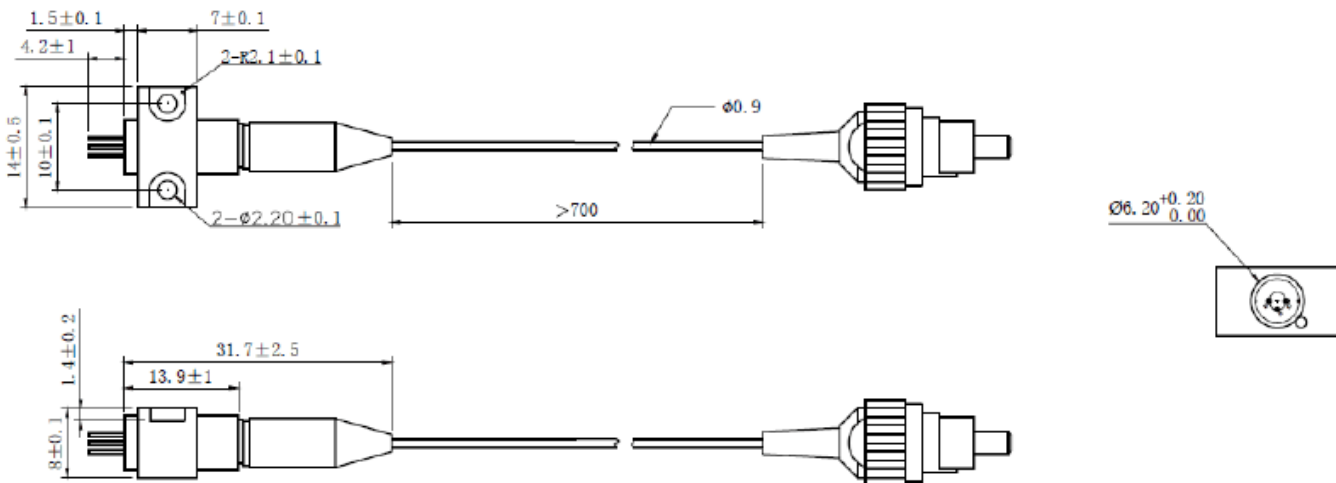
Outline Dimension

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.