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SPL445-40-3

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

Description

SPL445-40-3 is a green pigtailed laser diode, typically emitting at 450 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.

Maximum Rating

Parameter	Symbol	Values		Unit
		Min.	Max.	
Reverse Voltage	U_R		2.0	V
Operating Temperature	T_{OPR}	- 10	+ 70	°C
Storage Temperature	T_{STG}	- 40	+ 85	°C
Soldering Temperature (max. 3s)	T_{SOL}		+ 260	°C

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

Parameter		Symbol	Values			Unit
			Min.	Typ.	Max.	
Peak Wavelength		λ_P	440	450	460	nm
Spectral Width		λ_Δ		2		nm
Output Power		P_O		40		mW
Operating Voltage		U_F		6.0	7.0	V
Threshold Current		I_{th}		25	55	mA
Operating Current		I_O		135	155	mA
Fiber Spec.	Type		Single Mode			
	Core diameter		3			µm
	N.A.		0.12			
	Connector		FC/PC			
	Length			80		cm

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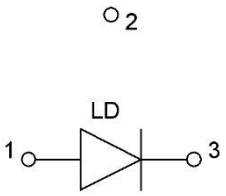
Electrical Connection

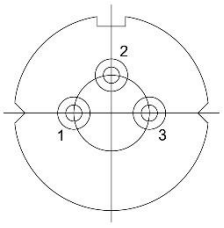
Pin Configuration*

Pin #	Function
Pin 1	LD anode
Pin 2	case
Pin 3	LD cathode

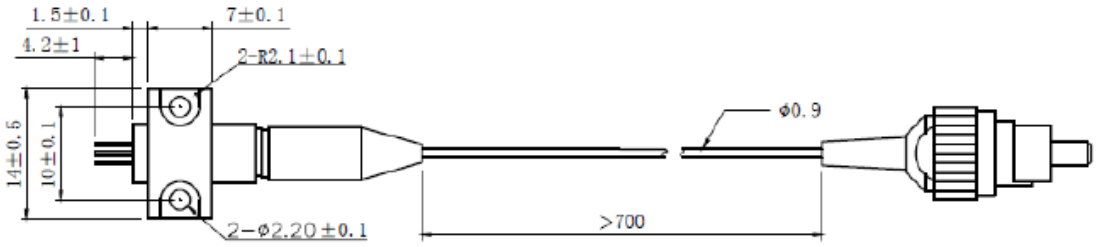
* subject to change

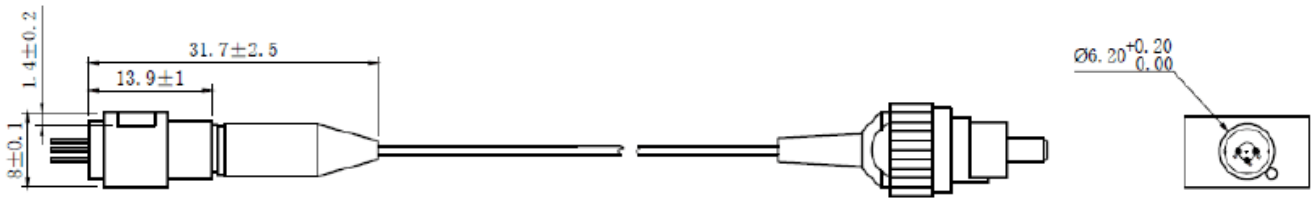


Bottom View



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.