



SPL445-50-3

- Blue Pigtailed Laser Diode
- 450 nm, 50 mW
- 3 μm SM Fiber
- FC/PC connector
- Heat Sink



Description

SPL445-50-3 is a green pigtailed laser diode, typically emitting at 450 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.

Maximum Rating

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

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

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		50		mW
Operating Voltage	U_F		6.0	7.0	V
Threshold Current	I_{th}		25	60	mA
Operating Current	I_O		140	160	mA
Fiber Spec.	Type	Single Mode			
	Core diameter		3		μm
	N.A.		0.12		
	Connector		FC/PC		
	Length		80		cm



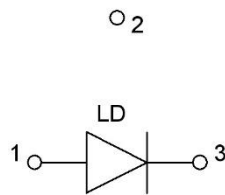


Electrical Connection

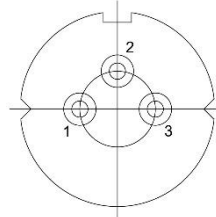
Pin Configuration*

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

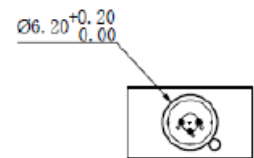
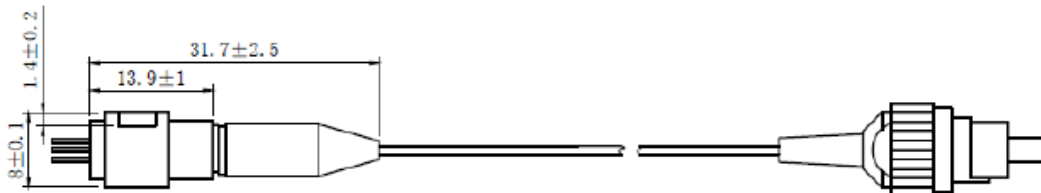
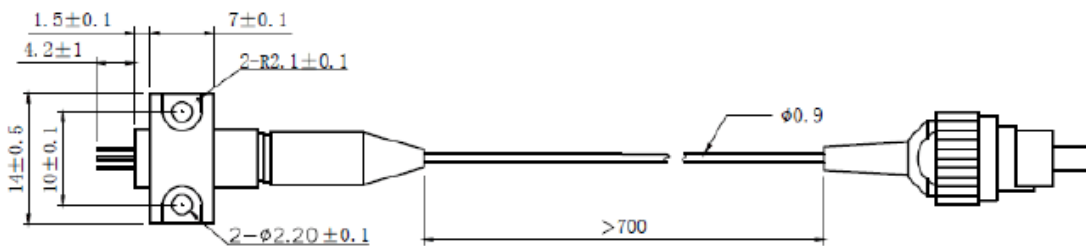
* subject to change



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.

