



SPL445-500-C105M

- UV Pigtailed Laser Diode
- 450 nm, 500 mW
- 105 μm MM Fiber
- FC/PC Connector



Description



SPL445-500-C105M is an ultra-violet pigtailed laser diode, typically emitting at 450 nm with an output power of 500 mW. It comes in a coaxial package with heat sink, and **105 μm multi-mode fiber** with FC/PC connector. Variants with different types of connectors are optionally available.

Maximum Rating

Parameter	Symbol	Values		Unit
		Min.	Max.	
Reverse Voltage	V_R		2.0	V
Operating Temperature	T_{OPR}	0	+ 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
Output Power	P_O		500		mW
Spectral Width (FWHM)			2.0		nm
Operating Voltage	V_F		6.2	7.0	V
Threshold Current	I_{th}		190	550	mA
Operating Current	I_O		1.0	1.3	mA
Fiber Spec.	Type	UV Multi-Mode			
	Core diameter		105		μm
	N.A.		0.22		
	Connector		FC/PC*		
	Length		80		cm

*FC/APC, SC, SMA905 available on request

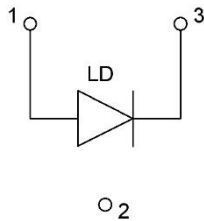




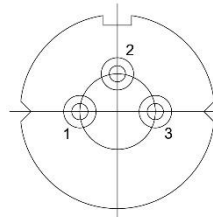
Electrical Connection

Pin Configuration*

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

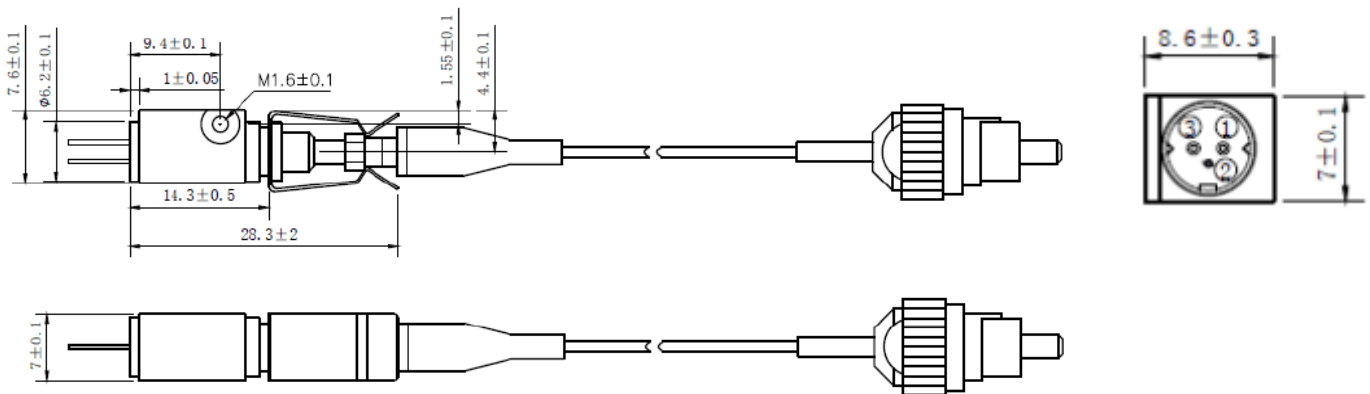


Bottom View



* 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.



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