

APPROVAL SHEET

ITEM: YL-Φ5.6LD-650nM(5mW)

RED LASER DIODE

YL-Φ5.6LD-650nm(5mW)

650nm/5mW 40°C Reliable Operation Design

◆ Features

- Low operating current
- High efficiency
- FFP single lateral mode
- High precision package
- MTTF > 6,000 Hrs in normal use condition

◆ Applications

- Laser pointers
- Industrial laser markers / measuring instruments
- Bar code readers

◆ Absolute maximum ratings

(TC=25°C)

Parameter	Symbol	Condition	Rating	Unit
Light output power	P_0	CW	5	mW
Reverse voltage (LD)	V_{RL}	-	2	V
Case Temperature	T_C	-	-10~+40	°C
Storage temperature	T_S	-	-15~+85	°C

***Reverse voltage (PD) = 30V, Forward current (PD) = 10mA

◆ Electrical and optical characteristics

Parameter	Symbol	Min	Typ.	Max.	Unit	Condition (CW)
Peak wavelength	λ	645	650	655	nm	$P_0 = 5mW$
Threshold current	I_{th}	-	14	20	mA	
Operating current	I_{op}	-	18	25	mA	
Operating voltage	V_{op}	-	2.2	2.5	V	
Differential efficiency	η	0.5	1	1.4	mW/mA	$P_0 = 3-5mW$
Monitor current	I_m	50	150	400	uA	$P_0 = 5mW, VRD=5V$
Parallel divergence angle	$\theta_{//}$	6.0	8.0	10.0	deg	$P_0 = 5mW$
Perpendicular divergence angle	θ_{\perp}	34	38	42	deg	
Parallel FFP deviation angle	$\Delta\theta_{//}$	-3.0	0.0	+3.0	deg	
Perpendicular FFP deviation angle	$\Delta\theta_{\perp}$	-3.0	0.0	+3.0	deg	
Emission Point Accuracy	$\Delta x \Delta y \Delta z$	-80	0	+80	um	

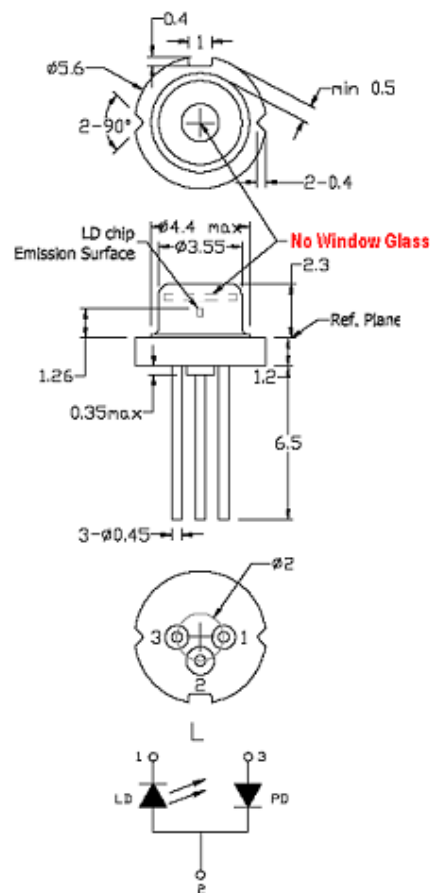
●Precautions

- * Do not operate the device above maximum ratings. Doing so may cause unexpected and permanent damage to the device.
- * Take precautions to avoid electrostatic discharge and / or momentary power spikes. A change in the characteristics of the laser or premature failure may result.
- * Proper heat sinking of the device assures stability and lifetime. Always ensure the maximum operating temperatures are not exceeded.
- * Observing visible on invisible laser beams with the human eye directly, or indirectly, can cause permanent damage. Use a camera to observe the laser.
- * No laser device should be used in any application or situation where life or property is at risk in event of device failure.
- * Specifications are subject to change without notice. Ensure that you have the laser specification by contacting us prior to purchase or use of the product.

Notice : YesLED proposes to operate YL-Φ5.6LD-650nm(5mW) by the external APC circuit.

*For reference only. Contents above are subject to change without notice.

Dimension



Unit : mm