

BLUE LASER DIODE

YL-Φ9LD-405nm(A)

YL-Φ9LD-405nm(A)_V0.0

405nm/1,000mW 30°C Violet Laser Diode

◆ Features

- Typical 405nm laser diode
- Package : 9.0mm
- Optical output power : 1,000mW (CW)
- Low operating current : 1,000mA (Typ.)

◆ Applications

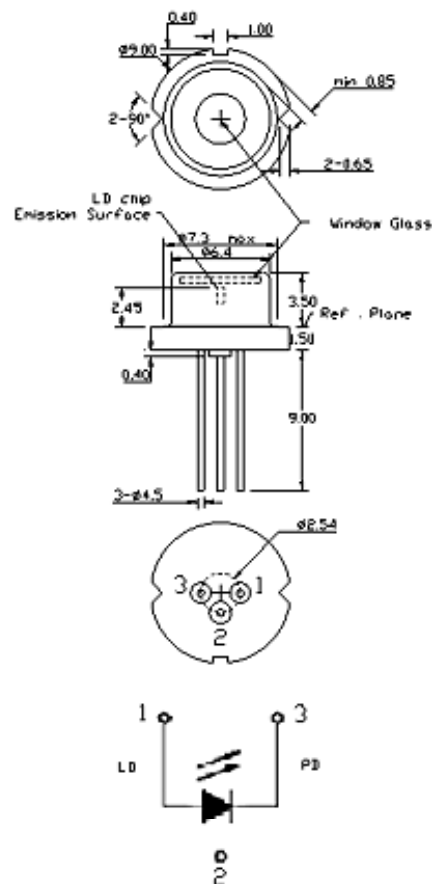
- Bio & Medical
- Direct imaging for PCB
- Display

◆ Absolute maximum ratings

(TC=25°C)

Parameter	Symbol	Condition	Rating	Unit
Light output power	P_0	CW	1,100	mW
Reverse voltage (LD)	V_{RL}	-	2	V
Case Temperature	T_C	-	-0~+30	°C
Storage temperature	T_S	-	-40~+85	°C

Dimension



(unit:mm)

◆ Electrical and optical characteristics

(TC=25°C)

Parameter	Symbol	Min	Typ.	Max.	Unit	Condition (CW)
Peak wavelength	λ	400	405	410	nm	$P_0 = 1,000\text{mW}$
Threshold current	I_{th}	250	320	400	mA	
Operating current	I_{op}	-	1,000	1,300	mA	
Operating voltage	V_{op}	-	-	5	V	
Parallel divergence angle		5.0	13.0	25.0	deg	$P_0 = 1,000\text{mW}$
Perpendicular divergence angle		30	42	50	deg	
Parallel FFP deviation angle		-3.0	0.0	+3.0	deg	
Perpendicular FFP deviation angle		-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 or 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.

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