# AlGaInP｜Visible Laser Diode

# ADL-65074SL

## 650nm 7mW 85℃ Reliable Operation

### Features

High Output Power：7mW CW
Small Package：Φ3.3mm
TE mode
Single Transverse/Longitudinal Mode

### Applications

Construction Tools
High Definition Laser Displays
Medical Applications

### Absolute maximum ratings

| Parameter | Symbol | Condition | Rating | Unit |
|---|---|---|---|---|
| Light output power | $P_O$ | CW | 8 | mW |
| Reverse voltage (LD) | $V_{RL}$ | - | 2 | V |
| Reverse voltage (PD) | $V_{RD}$ | - | 30 | V |
| Case temperature | $T_C$ | - | -10~+85 | $^o$C |
| Storage temperature | $T_S$ | - | -40~+85 | $^o$C |

### Electrical and optical characteristics ($T_c$=25 $^o$C)

| Parameter | Symbol | Min. | Typ. | Max. | Unit | Conditions |
|---|---|---|---|---|---|---|
| Peak wavelength | $\lambda$ | 648 | 655 | 660 | nm | $P_o$=7 mW |
| Threshold current | $I_{th}$ | - | 20 | 28 | mA | |
| Operating current | $I_{op}$ | - | 27 | 35 | mA | $P_o$=7 mW |
| Operating voltage | $V_{op}$ | - | 2.2 | 2.5 | V | $P_o$=7 mW |
| Differential efficiency | $\eta$ | 0.7 | 0.85 | 1.1 | mW/mA | $P_o$=3-5mW |
| Monitor current | $I_m$ | 0.1 | 0.2 | 0.3 | mA | $P_o$=7mW,$V_{RD}$=5V |
| Parallel divergence angle | $\theta_{//}$ | 6 | 9 | 12 | deg. | |
| Perpendicular divergence angle | $\theta_{\perp}$ | 24 | 27 | 32 | deg. | |
| Parallel FFP deviation angle | $\Delta\theta_{//}$ | -3 | 0 | +3 | deg. | |
| Perpendicular FFP deviation angle | $\Delta\theta_{\perp}$ | -3 | 0 | +3 | deg. | $P_o$=7 mW |
| 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 that 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 latest specification by contacting us prior to purchase or use of the product.
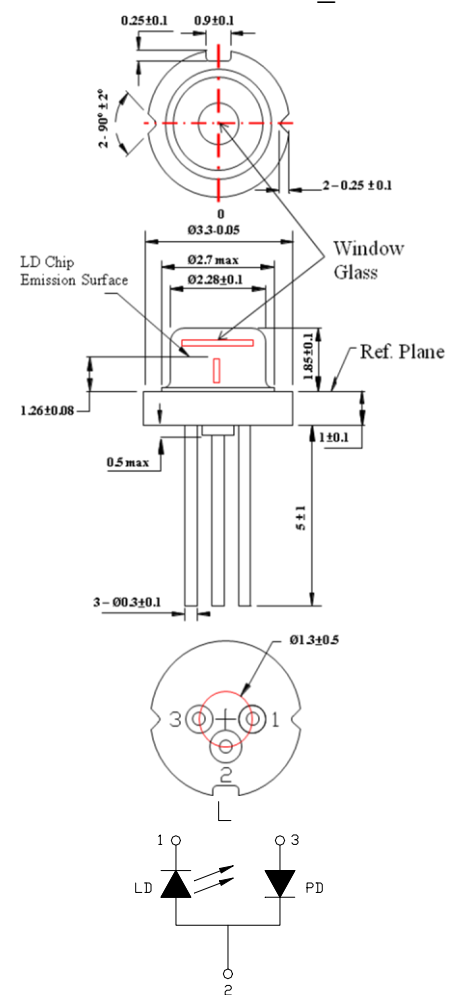
**Arima LASERS**

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