

AlGaInP Visible Laser Diode

ADL-63054TL

6-2D-LD63-012_Rev.00

★635nm 5mW 50°C Reliable Operation

•Features

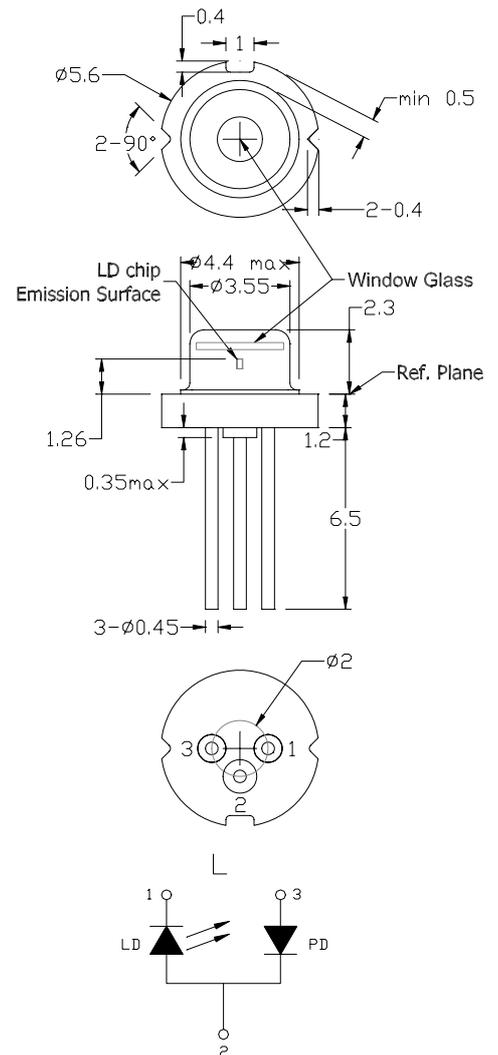
1. High assembly accuracy
2. High monitor current
3. High temperature operation

•Applications

1. High precision measuring instruments
2. High precision industrial laser markers
3. Survey and engineering instruments

•Absolute maximum ratings

| Parameter | Symbol | Condition | Rating | Unit |
|----------------------|----------|-----------|---------|------|
| Light output power | P_O | CW | 7 | mW |
| Reverse voltage (LD) | V_{RL} | - | 2 | V |
| Reverse voltage (PD) | V_{RD} | - | 30 | V |
| Forward current (PD) | I_{FD} | - | 10 | mA |
| Case temperature | T_C | - | -10~+50 | °C |
| Storage temperature | T_S | - | -40~+85 | °C |



•Electrical and optical characteristics ($T_c=25^\circ\text{C}$)

| Parameter | Symbol | Min. | Typ. | Max. | Unit | Conditions |
|-----------------------------------|------------------------------|------|------|------|-------|------------------------------------|
| Peak wavelength | λ | 630 | 635 | 640 | nm | $P_o=5\text{mW}$ |
| Threshold current | I_{th} | - | 24 | 30 | mA | |
| Operating current | I_{op} | - | 33 | 40 | mA | $P_o=5\text{mW}$ |
| Operating voltage | V_{op} | - | 2.2 | 2.5 | V | $P_o=5\text{mW}$ |
| Differential efficiency | η | 0.4 | 0.6 | 0.8 | mW/mA | $P_o=3\sim 5\text{mW}$ |
| Monitor current | I_m | 0.1 | 0.15 | 0.3 | mA | $P_o=5\text{mW}, V_{RD}=5\text{V}$ |
| Parallel divergence angle | $\theta_{ }$ | 6 | 7.5 | 11 | deg | |
| Perpendicular divergence angle | θ_{\perp} | 30 | 33 | 40 | deg | |
| Parallel FFP deviation angle | $\Delta\theta_{ }$ | -2 | 0 | +2 | deg | $P_o=5\text{mW}$ |
| Perpendicular FFP deviation angle | $\Delta\theta_{\perp}$ | -2 | 0 | +2 | deg | |
| Emission point accuracy | $\Delta x \Delta y \Delta z$ | -60 | 0 | +60 | 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.

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

Arima
LASERS

