

# AlGaInP Visible Laser Diode

## ADL-65075GR

6-2D-LD-65-018\_Rev.00

- ★650nm 7mW 70 °C Open Package
- ★Ideal for DVD optical pick-up head

### •Features

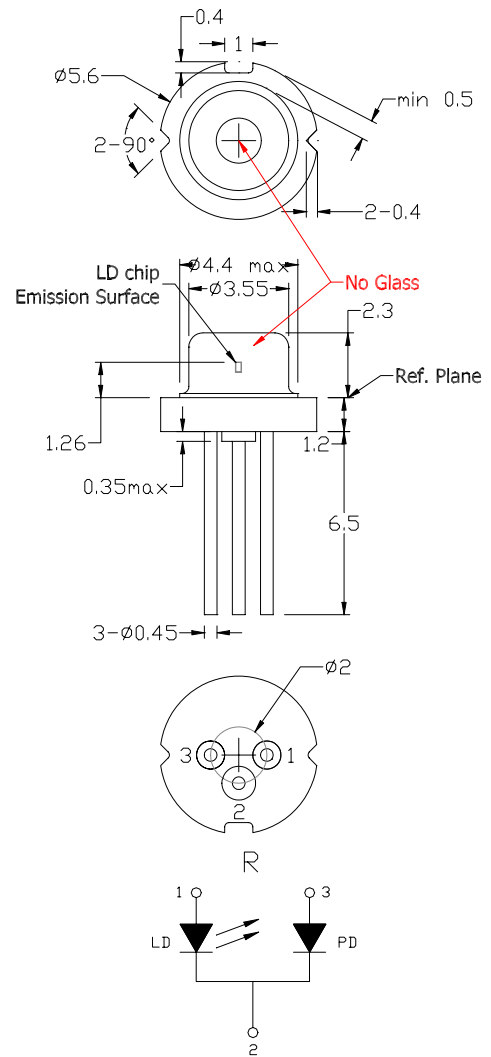
1. No window glass
2. Low operating current
3. Higher power

### •Applications

1. DVD player/ROM optical pick up
2. Combo drive optical pick up
3. Bar code scanner

### •Absolute maximum ratings

| Parameter            | Symbol   | Condition | Rating  | Unit |
|----------------------|----------|-----------|---------|------|
| Light output power   | $P_O$    | CW        | 10      | 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~+70 | °C   |
| Storage temperature  | $T_S$    | -         | -40~+85 | °C   |



### •Electrical and optical characteristics (T<sub>c</sub>=25 °C)

| Parameter                         | Symbol                       | Min. | Typ. | Max. | Unit  | Conditions           |
|-----------------------------------|------------------------------|------|------|------|-------|----------------------|
| Peak wavelength                   | $\lambda$                    | 650  | 655  | 660  | nm    | $P_o=7mW$            |
| Threshold current                 | $I_{th}$                     | -    | 20   | 25   | mA    |                      |
| Operating current                 | $I_{op}$                     | -    | 25   | 35   | mA    | $P_o=7mW$            |
| Operating voltage                 | $V_{op}$                     | -    | 2.2  | 2.5  | V     | $P_o=7mW$            |
| Differential efficiency           | $\eta$                       | 0.6  | 0.9  | 1.2  | mW/mA | $P_o=2-4mW$          |
| Monitor current                   | $I_m$                        | 0.1  | 0.2  | 0.3  | mA    | $P_o=7mW, V_{RD}=0V$ |
| Parallel divergence angle         | $\theta_{  }$                | 7    | 8    | 11   | deg   |                      |
| Perpendicular divergence angle    | $\theta_{\perp}$             | 25   | 28   | 32   | deg   |                      |
| Parallel FFP deviation angle      | $\Delta\theta_{  }$          | -3   | 0    | +3   | deg   | $P_o=4mW$            |
| Perpendicular FFP deviation angle | $\Delta\theta_{\perp}$       | -3   | 0    | +3   | 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 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

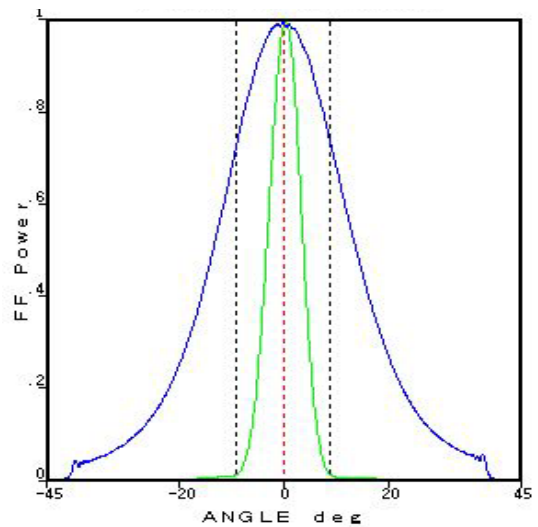
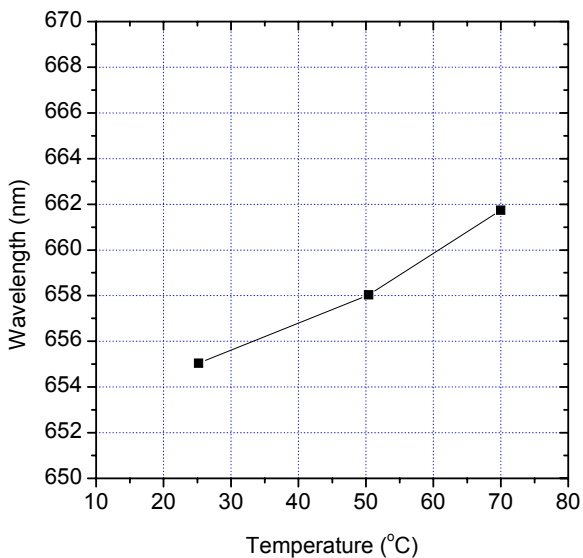
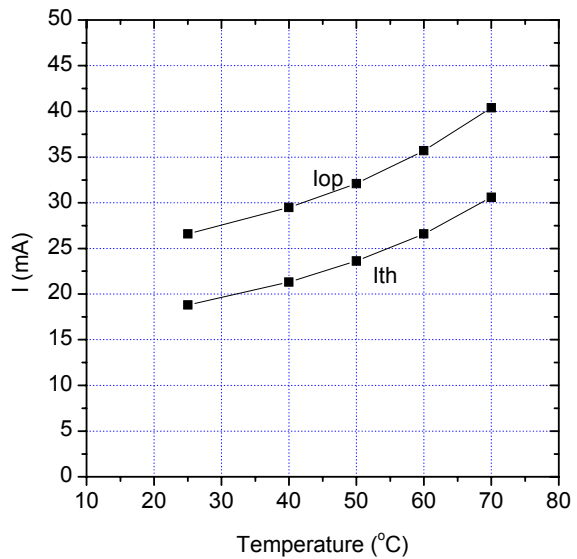
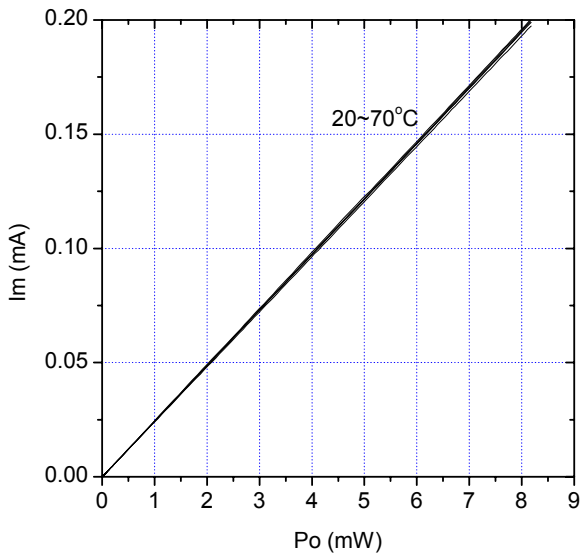
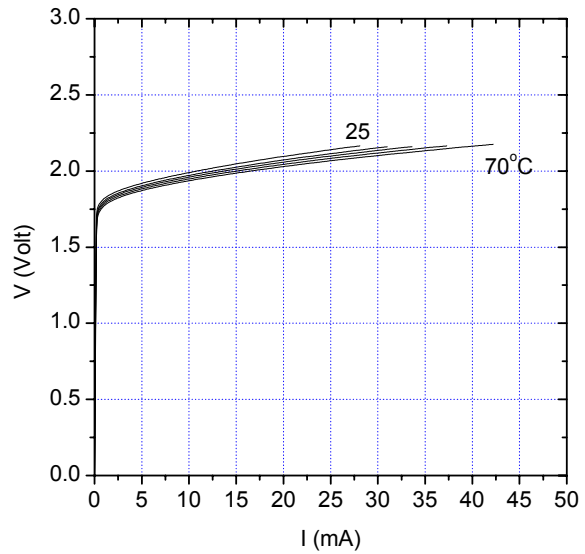
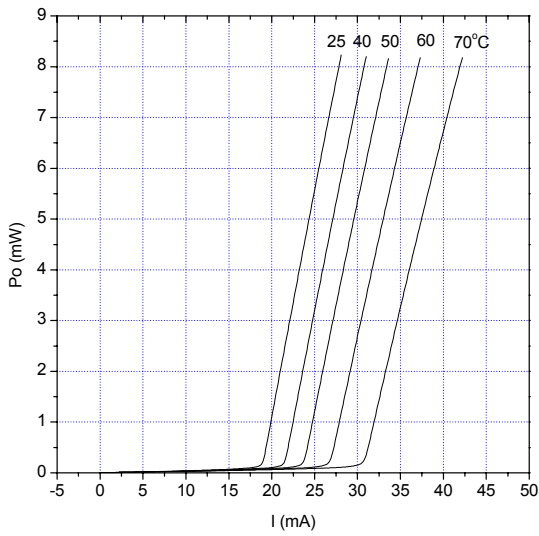
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**Arima**  
LASERS

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