

AlGaInP Visible Laser Diode

ADL-66Z01HL

DATE : 2006/10/12 Ver 1.0

★660nm 100mW 50°C

Reliable High Power Operation

• Features

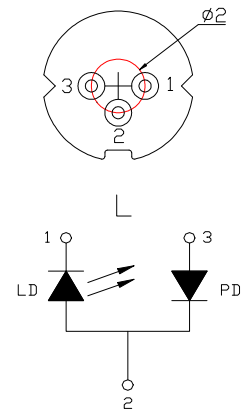
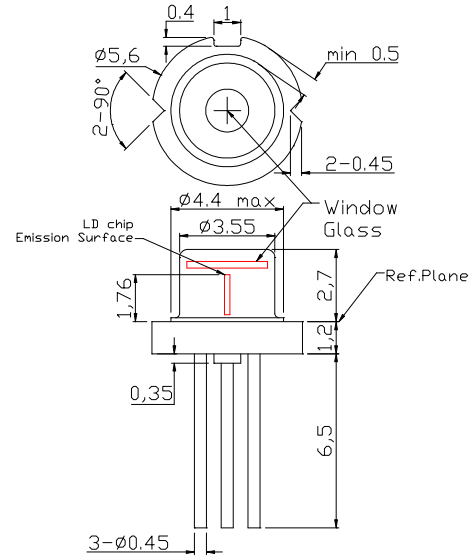
1. Highly reliable / COD free
2. Higher power
3. Monitor PD included

• Applications

1. High power Laser modules
2. Industrial laser markers / measuring instruments
3. Medical applications

• Absolute maximum ratings

| Parameter | Symbol | Condition | Rating | Unit |
|----------------------|----------|-----------|---------|------|
| Light output power | P_O | CW | 110 | 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 | 654 | 658 | 662 | nm | $P_O=100\text{mW}$ |
| Threshold current | I_{th} | - | 55 | 70 | mA | $P_O:5-10\text{mW}$ |
| Operating current | I_{op} | 130 | 142 | 190 | mA | $P_O=100\text{mW}$ |
| Operating voltage | V_{op} | 2.0 | 2.65 | 2.9 | V | $P_O=100\text{mW}$ |
| Differential efficiency | η | 0.8 | 1 | 1.25 | mW/mA | $P_O=90-100\text{mW}$ |
| Monitor current – L type | I_m | 1.0 | 1.5 | 2.0 | mA | $P_O=100\text{mW}, V_{RD}=5\text{V}$ |
| Parallel divergence angle | $\theta_{ }$ | 7 | 10 | 12 | deg | $P_O=100\text{mW}$ |
| Perpendicular divergence angle | θ_{\perp} | 15 | 17 | 19 | deg | |
| Parallel FFP deviation angle | $\Delta\theta_{ }$ | -3 | 0 | +3 | deg | |
| 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

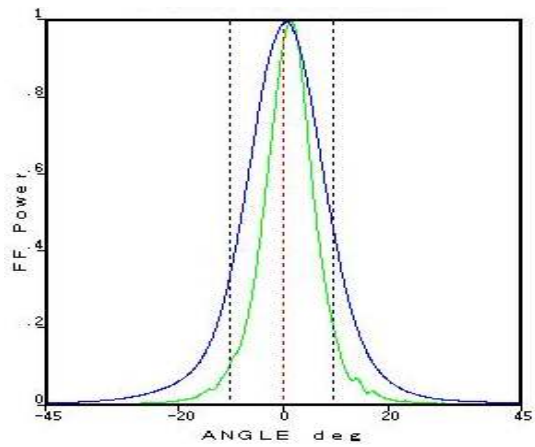
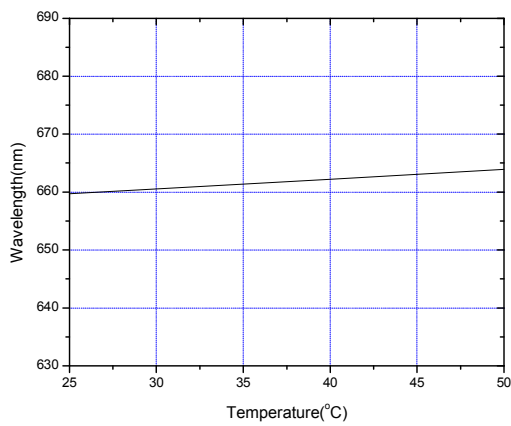
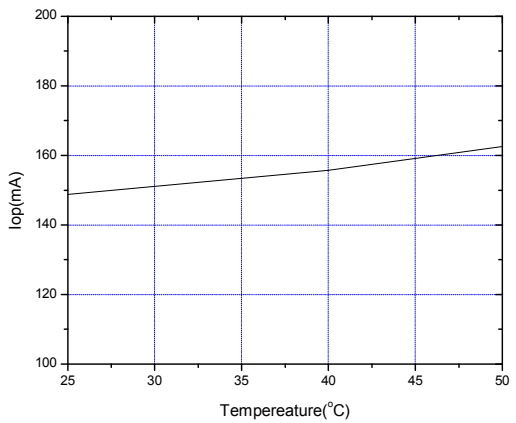
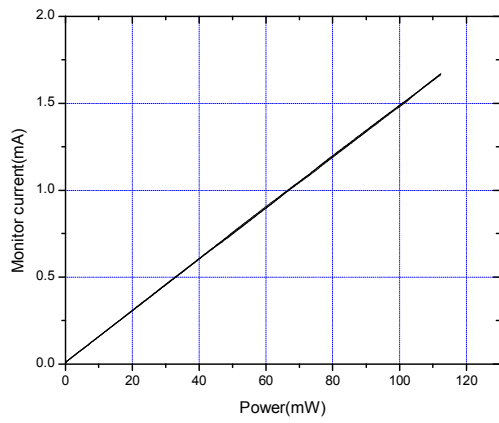
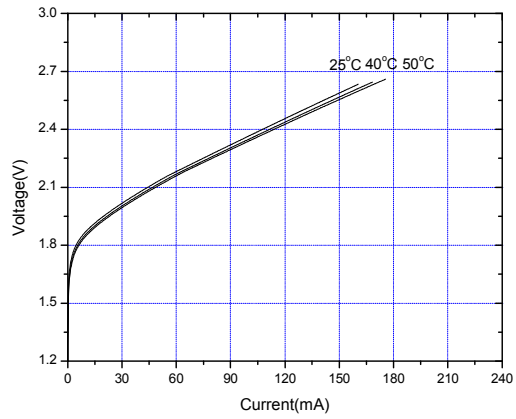
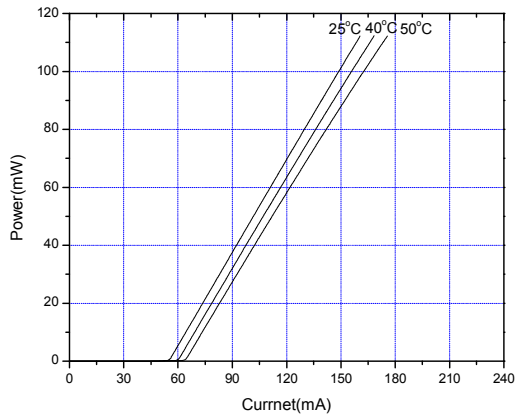
- * Do not operate the device above maximum ratings. Doing so may cause unexpected and permanent damage to the device.
- * Take precautions to avoid electrostatic discharge and/or momentary power spikes. A change in the characteristics of the laser or premature failure may result.
- * Proper heat sinking 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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