

# AlGaAs Infrared Laser Diode

**ADL-80Y01TZ**

DATE:2008/08/13 Ver 2.0

## 808nm 200mW High Power Operation

### •Features

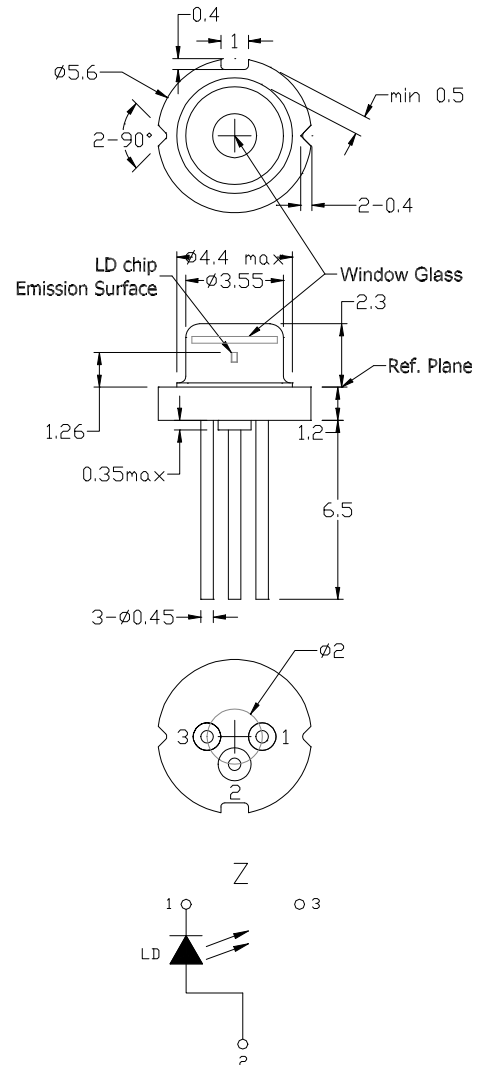
1. Stable wavelength
2. Low operation current
3. High reliability

### •Applications

1. Pumping source for DPSS green laser
2. Medical applications

### •Absolute maximum ratings

| Parameter            | Symbol   | Condition | Rating  | Unit |
|----------------------|----------|-----------|---------|------|
| Light output power   | $P_O$    | CW        | 200     | mW   |
| Reverse voltage (LD) | $V_{RL}$ | -         | 2       | V    |
| 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 (CW)               |
|-----------------------------------|------------------------------|------|------|------|---------------|-------------------------------|
| Peak wavelength                   | $\lambda$                    | 805  | 808  | 811  | nm            |                               |
| Threshold current                 | $I_{th}$                     | -    | 55   | 70   | mA            |                               |
| Operating current                 | $I_{op}$                     | -    | 260  | 280  | mA            | $P_o=200\text{mW}$            |
| Operating voltage                 | $V_{op}$                     | -    | 1.7  | 1.9  | V             |                               |
| Differential efficiency           | $\eta$                       | 0.8  | 1    | -    | mW/mA         |                               |
| Parallel divergence angle         | $\theta_{  }$                | -    | 9    | 15   | deg           | $P_o=150\text{-}200\text{mW}$ |
| Perpendicular divergence angle    | $\theta_{\perp}$             | -    | 41   | 48   | deg           |                               |
| Parallel FFP deviation angle      | $\Delta\theta_{  }$          | -3   | 0    | +3   | deg           | $P_o=200\text{mW}$            |
| Perpendicular FFP deviation angle | $\Delta\theta_{\perp}$       | -5   | 0    | +5   | deg           |                               |
| Emission point accuracy           | $\Delta x \Delta y \Delta z$ | -80  | 0    | +80  | $\mu\text{m}$ |                               |

### •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.

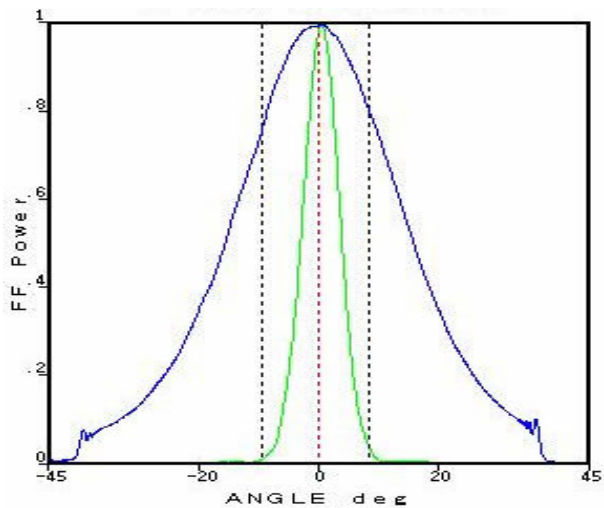
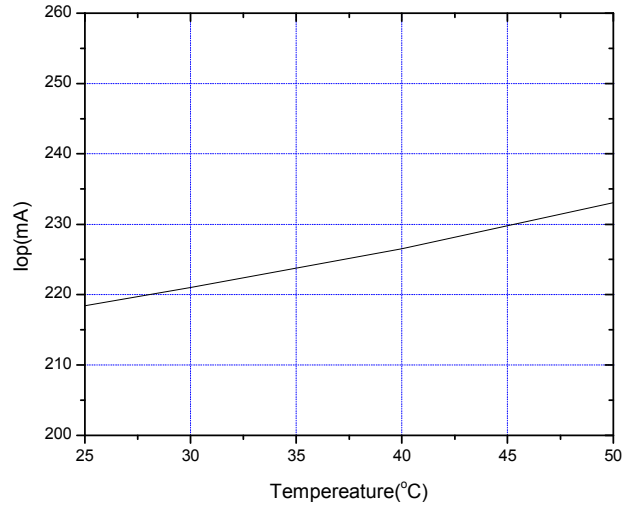
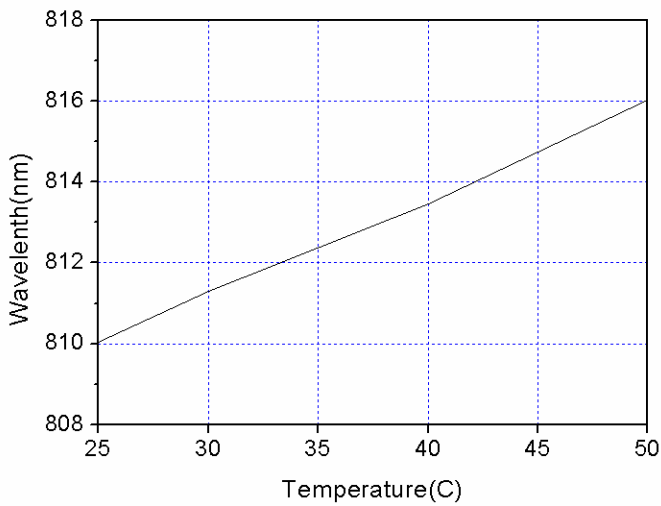
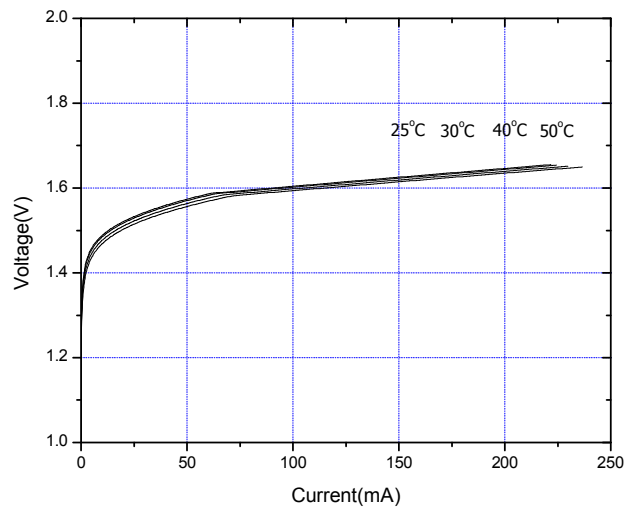
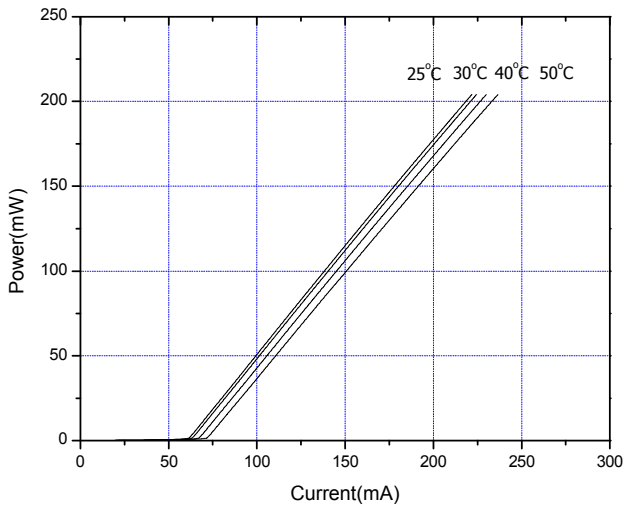
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**Arima**  
LASERS

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