

# Infrared Laser Diode

**ADL-80V03TL**

6-2D-LD80-010\_Rev.01

## 808nm 0.5W High Power Operation

### Features

Highly reliable  
Higher power

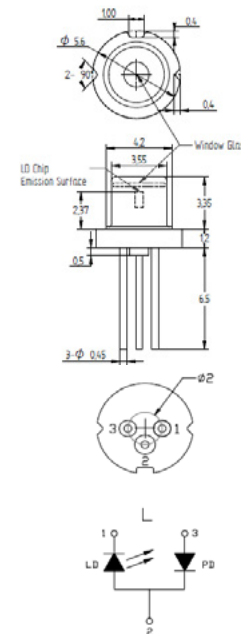
### Applications

Pumping of solid-state lasers and fiber lasers  
Industrial, measuring, scientific and medical systems  
Applications in the printing industry  
Defense and security

### Absolute maximum ratings

| Parameter            | Symbol   | Condition | Rating  | Unit |
|----------------------|----------|-----------|---------|------|
| Light output power   | $P_O$    | CW        | 0.55    | W    |
| Reverse voltage (LD) | $V_{RL}$ | -         | 2       | V    |
| Case temperature     | $T_C$    | -         | -10~+50 | °C   |
| Storage temperature  | $T_S$    | -         | -40~+85 | °C   |

Unit: mm



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

| Parameter                      | Symbol           | Min. | Typ. | Max. | Unit  | Conditions     |
|--------------------------------|------------------|------|------|------|-------|----------------|
| Peak wavelength                | $\lambda$        | 798  | 808  | 818  | nm    | $P_O=0.5W$     |
| Threshold current              | $I_{th}$         | -    | 320  | 450  | mA    |                |
| Operating current              | $I_{op}$         | -    | 800  | 1000 | mA    |                |
| Operating voltage              | $V_{op}$         | -    | 1.9  | 2.5  | V     |                |
| Differential efficiency        | $\eta$           | 0.7  | 1.1  | 1.4  | mW/mA | $P_O=0.4-0.5W$ |
| Monitor current                | $I_m$            | 0.5  | -    | 3    | mA    | $P_O=0.5W$     |
| Parallel divergence angle      | $\theta_{//}$    | -    | 7    | 12   | deg.  |                |
| Perpendicular divergence angle | $\theta_{\perp}$ | 30   | 35   | 40   | deg.  |                |

\* Sufficient heat dissipation is required for CW operation.

### 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**

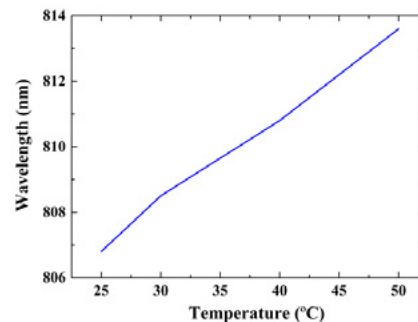
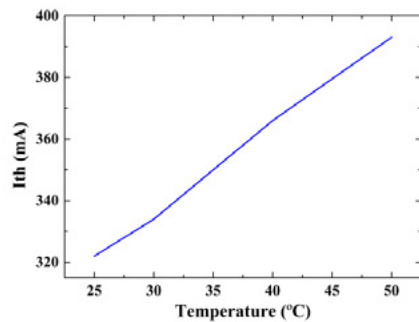
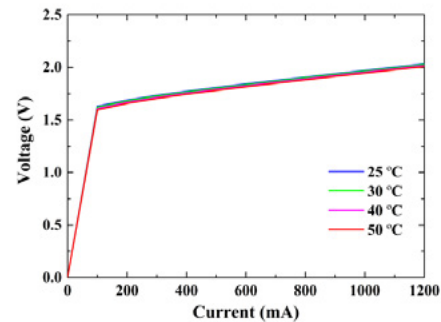
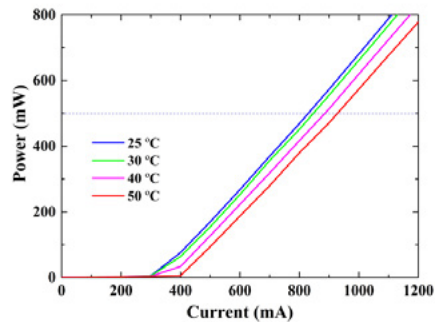
# Infrared Laser Diode

**ADL-80V03TL**

6-2D-LD80-010\_Rev.01

## 808nm 0.5W High Power Operation

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