

Infrared Laser Diode

ADL-80Y04TZ

6-2D-LD80-001_Rev.00

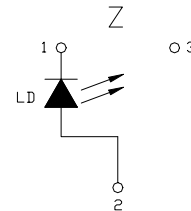
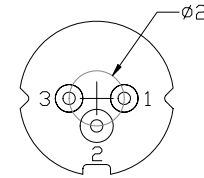
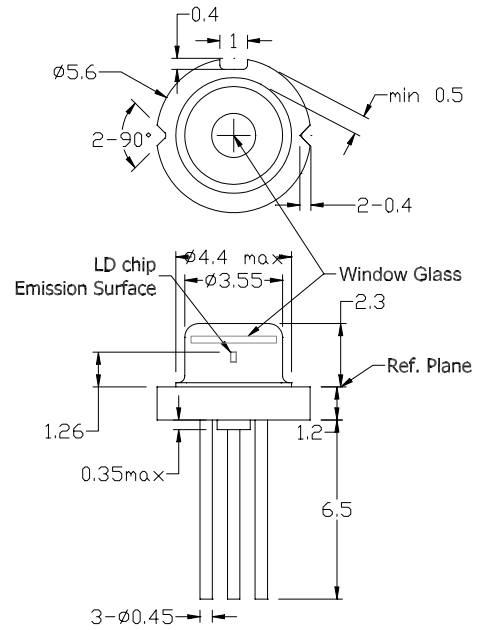
808nm 200mW High Power Operation

• Features

1. Low threshold current
2. Low operation current
3. High pumping efficiency
4. Stable wavelength
5. 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 | λ | 805 | 808 | 811 | nm | $P_o=200\text{mW}$ |
| Threshold current | I_{th} | - | 45 | 60 | mA | |
| Operating current | I_{op} | - | 225 | 260 | mA | |
| Operating voltage | V_{op} | - | 1.9 | 2.2 | V | $P_o=150\text{-}200\text{mW}$ |
| Differential efficiency | η | 0.8 | 1.2 | - | mW/mA | |
| Parallel divergence angle | $\theta_{ }$ | - | 8 | 11 | deg | $P_o=200\text{mW}$ |
| Perpendicular divergence angle | θ_{\perp} | - | 39 | 48 | deg | |
| Parallel FFP deviation angle | $\Delta\theta_{ }$ | -3 | 0 | +3 | deg | |
| Perpendicular FFP deviation angle | $\Delta\theta_{\perp}$ | -5 | 0 | +5 | deg | |
| Emission point accuracy | $\Delta x \Delta y \Delta z$ | -80 | 0 | +80 | um | |

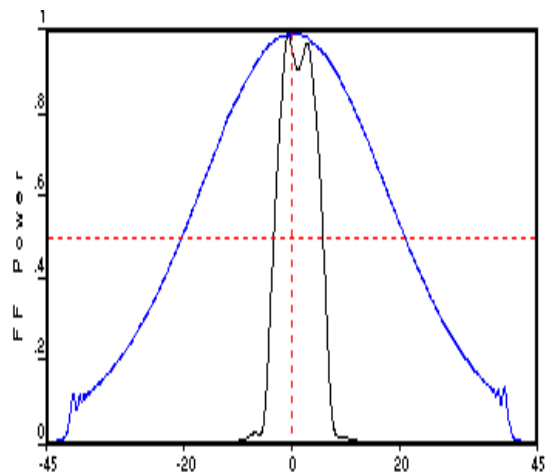
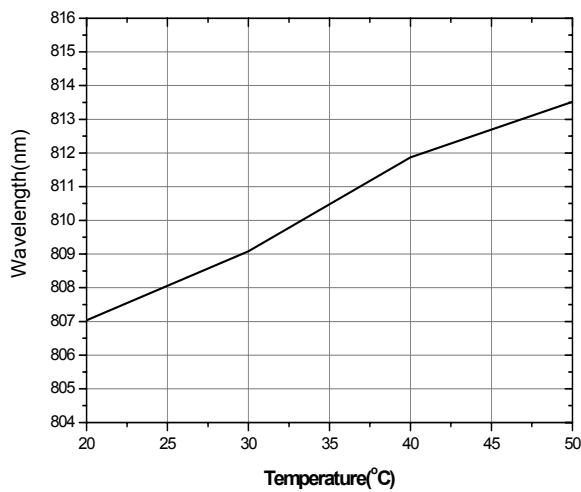
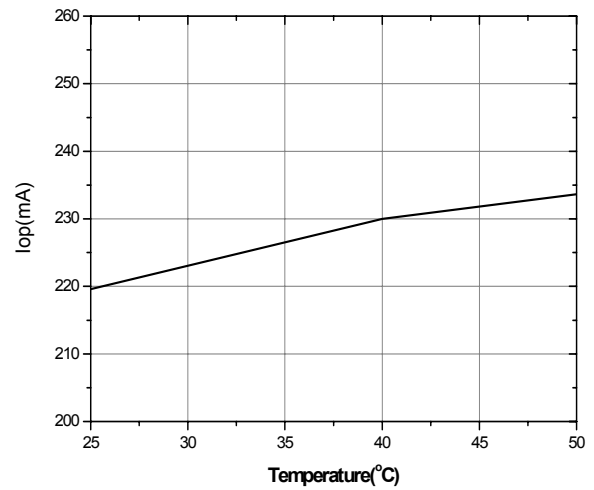
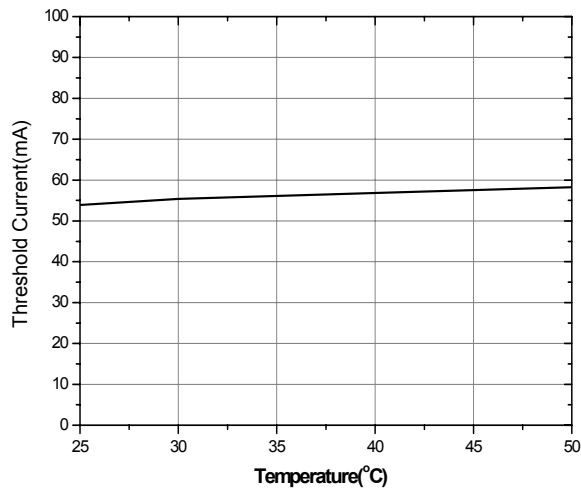
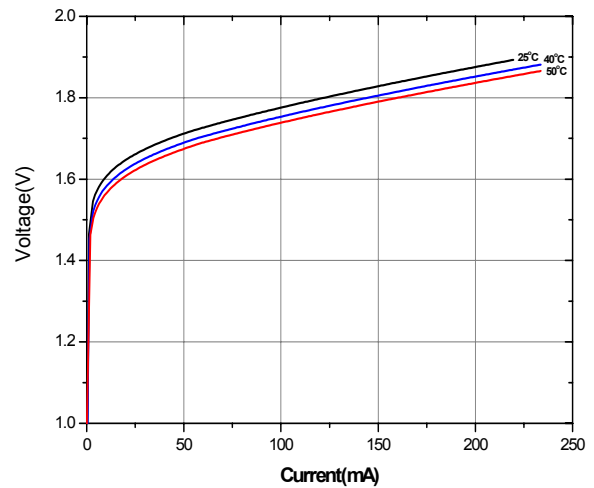
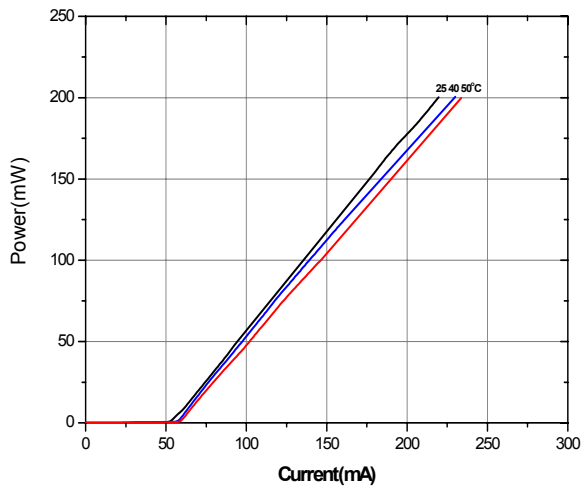
• Precautions

- * 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.

Notice: Arima Lasers proposes to operate ADL-80Y04TZ by the external APC circuit

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