

Infrared Laser Diode

ADL-94Y01IY-F1

6-2D-LD90-003_Rev.00

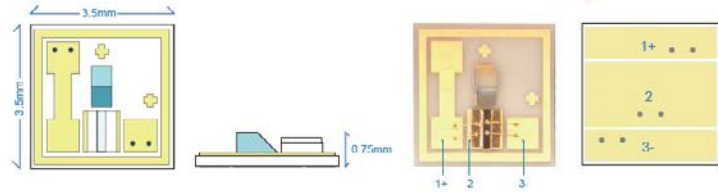
940nm 200mW

Features

High wavelength stability at different temperature
High power conversion efficiency
Open package

Applications

Moving sensor/Gesture
Photoelectric sensors
3D sensing
ToF applications



Absolute Maximum Ratings

| Parameter | Symbol | Condition | Rating | Unit |
|---------------------|----------|-----------|--------|------|
| Light Output Power | P_o | CW | 220 | mW |
| Reverse Voltage(LD) | V_{RL} | - | 2 | V |
| Case Temperature | TC | - | -10~60 | °C |
| Storage Temperature | TS | - | -40~85 | °C |



Electrical and Optical Characteristics(Tc=25°C)

| Parameter | Symbol | Min. | Typ. | Max. | Unit | Condition |
|--------------------------------|------------------|------|------|------|-------|--------------|
| Peak Wavelength | λ | 930 | 940 | 950 | nm | Po=200mW |
| Threshold Current | I_{th} | | 46 | 65 | mA | |
| Operating Current | I_{op} | | 300 | 340 | mA | Po=200mW |
| Operating Voltage | V_{op} | | 1.9 | | V | Po=200mW |
| Differential Efficiency | η | 0.7 | 0.75 | 0.85 | mW/mA | Po=100-200mW |
| Parallel Divergence Angle | $\theta_{//}$ | 4 | 7 | 13 | deg. | Po=200mW |
| Perpendicular Divergence Angle | θ_{\perp} | 12 | 19 | 25 | deg. | Po=200mW |

- * Sufficient heat dissipation is required for CW operation.
- * The characteristics was tested under cw condition.
- * Divergence angle measurement was based on FWHM

● Precautions

- * Do not operate the device above maximum ratings even short period of time. 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

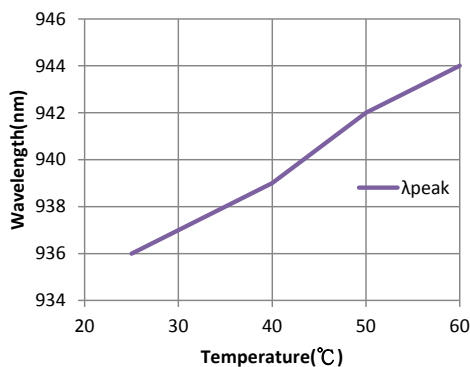
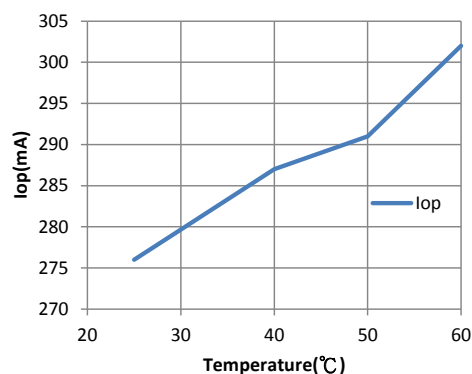
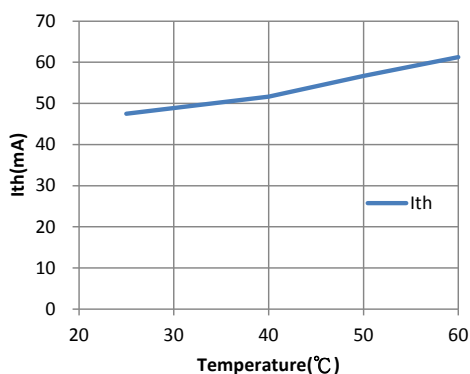
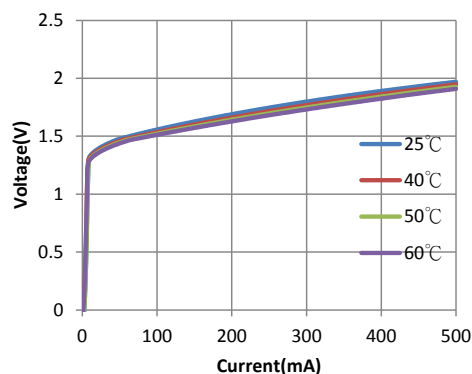
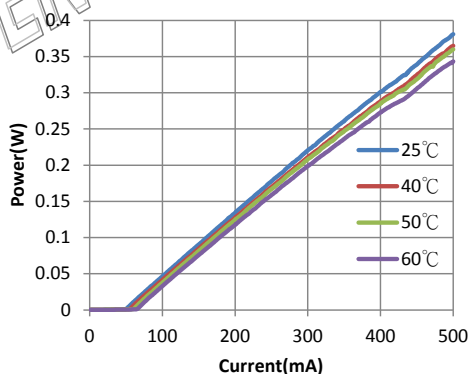
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