
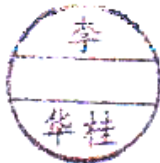


APPROVAL SHEET

(承认书)

ITEM: ADL-65053TL-2

版本 (Verison) : 6-2D-LD65-005 Rev.0.0
日期 (Date) : 2009-02-25

| Prepared By (制订) | Confirmed By (确认) | Approved By (承认) |
|---|---|------------------|
|  |  | |
| Date (日期) | Date (日期) | Date (日期) |

RED LASER DIODE

ADL-65053TL-2
6-2D-LD65-005 Rev.0.0
650nm/5mW 70°C Visible Laser Diode

Dimension

◆ Features

- High temperature operation
- FFP single lateral mode
- High reliability
- Excellent far field pattern

◆ Applications

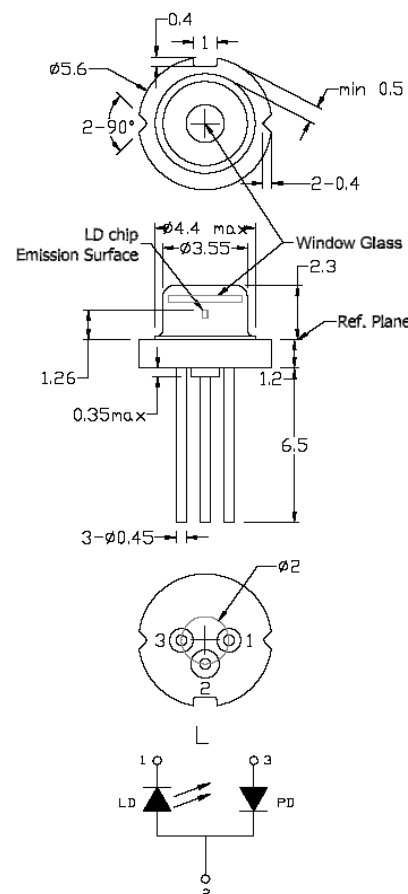
- Laser pointers
- Industrial laser markers / measuring instruments
- Bar code readers

◆ Absolute maximum ratings

(TC=25°C)

| Parameter | Symbol | Condition | Rating | Unit |
|----------------------|----------|-----------|---------|------|
| Light output power | P_0 | CW | 7 | mW |
| Reverse voltage (LD) | V_{RL} | - | 2 | V |
| Case Temperature | T_C | - | -10~+70 | °C |
| Storage temperature | T_S | - | -40~+85 | °C |

***Reverse voltage (PD) = 30V, Forward current (PD) = 10mA



unit : mm

◆ Electrical and optical characteristics

| Parameter | Symbol | Min | Typ. | Max. | Unit | Condition (CW) |
|-----------------------------------|------------------------------|------|------|------|-------|------------------------|
| Peak wavelength | λ | 645 | 655 | 660 | nm | $P_0 = 5mW$ |
| Threshold current | I_{th} | - | 21 | 25 | mA | |
| Operating current | I_{op} | - | 29 | 35 | mA | |
| Operating voltage | V_{op} | - | 2.15 | 2.5 | V | |
| Differential efficiency | η | 0.5 | 0.65 | 1 | mW/mA | $P_0 = 3-5mW$ |
| Monitor current | I_m | 0.05 | 0.15 | 0.3 | mA | $P_0 = 5mW, V_{RD}=5V$ |
| Parallel divergence angle | θ_{\parallel} | 6.0 | 8.0 | 10.0 | deg | $P_0 = 5mW$ |
| Perpendicular divergence angle | θ_{\perp} | 24 | 28 | 35 | deg | |
| Parallel FFP deviation angle | $\Delta\theta_{\parallel}$ | -3.0 | 0.0 | +3.0 | deg | |
| Perpendicular FFP deviation angle | $\Delta\theta_{\perp}$ | -3.0 | 0.0 | +3.0 | 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 the maximum operating temperatures are not exceeded.
- * Observing visible on 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 laser specification by contacting us prior to purchase or use of the product.

Notice : A-LASER proposes to operate ADL-65053TL-2 by the external APC circuit.
**For reference only. Contents above are subject to change without notice.*