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# **APPROVAL SHEET**

(承认书)

ITEM: ADL-65052TL-3

版本 (Verison): ADL-65052TL-3 V1.0

日期 (Date): 2007-06-08

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



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## **RED LASER DIODE**

### ADL-65052TL-3

ADL-65052TL-3 V1.0

#### **Dimension**

## 650nm/5mW 50<sup>°</sup>C Reliable Operation Design

- Features
  - Low operating current
  - High efficiency
  - FFP single lateral mode
  - Sort Im by grade

## Applications

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

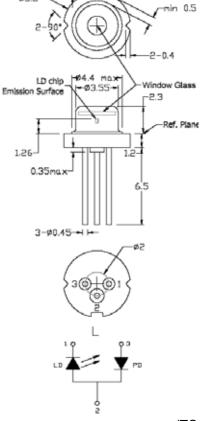
## Absolute maximum ratings

| (TC=25°C) | ) |
|-----------|---|
|-----------|---|

| Parameter            | Symbol         | Condition | Rating  | Unit                   |
|----------------------|----------------|-----------|---------|------------------------|
| Light output power   | P <sub>0</sub> | CW        | 7       | mW                     |
| Reverse voltage (LD) | $V_{RL}$       | -         | 2       | V                      |
| Case Temperature     | T <sub>C</sub> | -         | -10~+50 | $^{\circ}\!\mathbb{C}$ |
| Storage temperature  | Ts             | -         | -40~+85 | $^{\circ}\mathbb{C}$   |

<sup>\*\*\*</sup>Reverse voltage (PD) = 30V, Forward current (PD) = 10mA

## Electrical and optical characteristics



(TC=25°C)

| Parameter                         | Symbol                    | Min  | Тур. | Max. | Unit  | Condition (CW)   |
|-----------------------------------|---------------------------|------|------|------|-------|------------------|
| Peak wavelength                   | λ                         | 645  | 655  | 660  | nm    |                  |
| Threshold current                 | I <sub>th</sub>           | -    | 15   | 20   | mA    | Po = 5mW         |
| Operating current                 | l <sub>op</sub>           | -    | 20   | 22   | mA    |                  |
| Operating voltage                 | $V_{op}$                  | -    | 2.2  | 2.5  | V     |                  |
| Differential efficiency           |                           | 0.5  | 1    | 1.4  | mW/mA | Po = 3-5mW       |
| Monitor current                   | $\mathbf{I}_{\mathbf{m}}$ | 0.1  | 0.18 | 0.4  | mA    | Po = 5mW, VRD=5V |
| Parallel divergence angle         |                           | 6.0  | 8.0  | 12.0 | deg   |                  |
| Perpendicular divergence angle    |                           | 24   | 27   | 32   | deg   |                  |
| Parallel FFP deviation angle      |                           | -3.0 | 0.0  | +3.0 | deg   | Po = 5mW         |
| Perpendicular FFP deviation angle |                           | -3.0 | 0.0  | +3.0 | deg   | ]                |
| Emission Point Accuracy           | ∆x∆y∆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-65052TL-3 by the external APC circuit.

\*For reference only. Contents above are subject to change without notice.