

# L1050-35T52 High Power InGaAsP IR LED

L1050-35T52 is InGaAsP LED mounted on TO-18 stem and hermetically sealed with flat glass can.

On forward bias it emits a spectral band of radiation, which peaks at 1050nm.

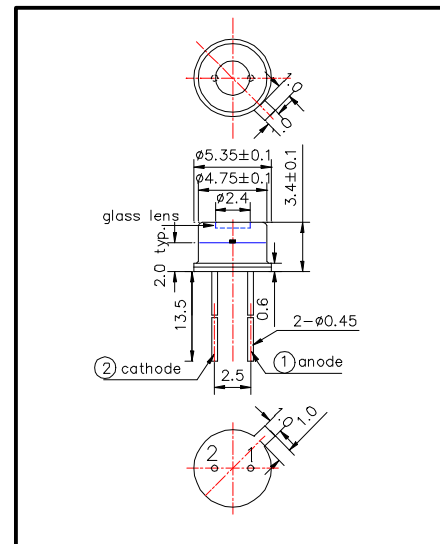
## Features

- 1) Wide viewing angle
- 2) High Reliability

## Specifications

- |                     |                       |
|---------------------|-----------------------|
| 1) Product Name     | NIR LED Lamp          |
| 2) Type No.         | L1050-35T52           |
| 3) Chip Spec.       |                       |
| (1) Material        | InGaAsP/InP           |
| (2) Peak Wavelength | 1050nm                |
| 4) Package          |                       |
| (1) Type            | TO-18 stem            |
| (2) Lens            | f 2.4 flat glass lens |
| (3) Cap             | Gold plated           |

Outer dimension(Unit:mm)



## Absolute Maximum Ratings

| Item                  | Symbol           | Maximum Rated Value | Unit | Ambient Temperature  |
|-----------------------|------------------|---------------------|------|----------------------|
| Power Dissipation     | P <sub>D</sub>   | 140                 | mW   | T <sub>a</sub> =25°C |
| Forward Current       | I <sub>F</sub>   | 100                 | mA   | T <sub>a</sub> =25°C |
| Pulse Forward Current | I <sub>FP</sub>  | 1000                | mA   | T <sub>a</sub> =25°C |
| Reverse Voltage       | V <sub>R</sub>   | 5                   | V    | T <sub>a</sub> =25°C |
| Operating Temperature | T <sub>OPR</sub> | -30 ~ +80           | °C   |                      |
| Storage Temperature   | T <sub>STG</sub> | -30 ~ +100          | °C   |                      |
| Soldering Temperature | T <sub>SOL</sub> | 260                 | °C   |                      |

‡ Pulse Forward Current condition: Duty=1% and Pulse Width=1us.

‡ Soldering condition: Soldering condition must be completed within 3 seconds at 260°C

## Electro-Optical Characteristics

| Item                 | Symbol           | Condition            | Minimum | Typical | Maximum | Unit |
|----------------------|------------------|----------------------|---------|---------|---------|------|
| Forward Voltage      | V <sub>F</sub>   | I <sub>F</sub> =20mA |         | 1.1     | 1.5     | V    |
| Reverse Current      | I <sub>R</sub>   | V <sub>R</sub> =5V   |         |         | 10      | uA   |
| Total Radiated Power | P <sub>O</sub>   | I <sub>F</sub> =20mA |         | 0.4     |         | mW   |
| Peak Wavelength      | λ <sub>P</sub>   | I <sub>F</sub> =20mA | 1000    | 1050    | 1100    | nm   |
| Half Width           | Δλ               | I <sub>F</sub> =20mA |         | 100     |         | nm   |
| Viewing Half Angle   | Q <sub>1/2</sub> | I <sub>F</sub> =20mA |         | ±55     |         | deg. |
| Rise Time            | t <sub>r</sub>   | I <sub>F</sub> =20mA |         | 10      |         | ns   |
| Fall Time            | t <sub>f</sub>   | I <sub>F</sub> =20mA |         | 10      |         | ns   |

‡ Radiated Power is measured by Ando Optical Multi Meter AQ2140 & AQ2742