

## Features

- Purple Colored transparency lens type
- $\phi 5\text{mm}$ (T-13/4) all plastic mold type
- Low power consumption
- High radiant intensity

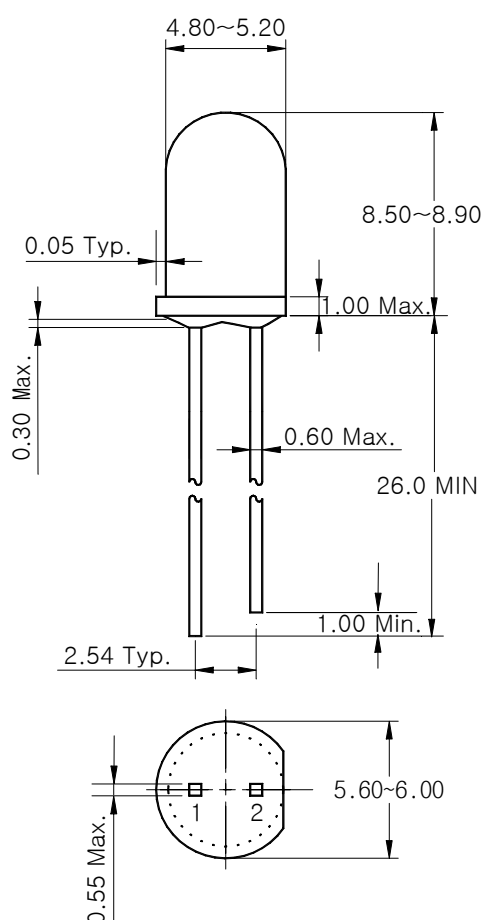
## Applications

- Infrared remote control and free air transmission systems with low forward voltage and comfortable radiation angle requirements in combination with PIN photodiodes or phototransistors.

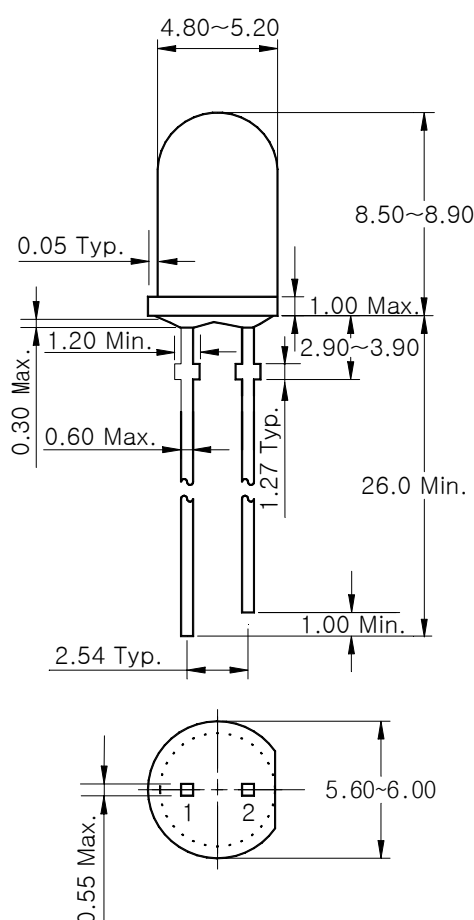
## Outline Dimensions

unit : mm

STRAIGHT TYPE



STOPPER TYPE : (B)



### PIN Connections

1. Anode
2. Cathode

**Absolute Maximum Ratings****(Ta=25℃)**

| Characteristic                       | Symbol    | Rating              | Unit |
|--------------------------------------|-----------|---------------------|------|
| Power dissipation                    | $P_D$     | 150                 | mW   |
| Forward current                      | $I_F$     | 100                 | mA   |
| * <sup>1</sup> Peak forward current  | $I_{FP}$  | 1                   | A    |
| Reverse voltage                      | $V_R$     | 4                   | V    |
| Operating temperature range          | $T_{opr}$ | -25~85              | ℃    |
| Storage temperature range            | $T_{stg}$ | -30~100             | ℃    |
| * <sup>2</sup> Soldering temperature | $T_{sol}$ | 260℃ for 10 seconds |      |

\*1.Duty ratio = 1/16, Pulse width = 0.1ms

\*2.Keep the distance more than 2.0mm from PCB to the bottom of IRED package

**Electrical / Optical Characteristics****(Ta=25℃)**

| Characteristic            | Symbol          | Test Condition      | Min. | Typ. | Max. | Unit  |
|---------------------------|-----------------|---------------------|------|------|------|-------|
| Forward voltage           | $V_F$           | $I_F = 50\text{mA}$ | -    | 1.3  | 1.5  | V     |
| Radiant intensity         | $I_E$           | $I_F = 50\text{mA}$ | 20   | 32   | -    | mW/Sr |
| Peak wavelength           | $\lambda_p$     | $I_F = 50\text{mA}$ | -    | 950  | -    | nm    |
| Spectrum bandwidth        | $\Delta\lambda$ | $I_F = 50\text{mA}$ | -    | 50   | -    | nm    |
| Reverse current           | $I_R$           | $V_R = 4\text{V}$   | -    | -    | 10   | uA    |
| * <sup>3</sup> Half angle | $\theta^{1/2}$  | $I_F = 50\text{mA}$ | -    | ±25  | -    | deg   |

\*3. 1)  $\theta^{1/2}$  is the off-axis angle where the luminous intensity is 1/2 the peak intensity2) Half angle( $\theta^{1/2}$ ) is ±30 Degrees in transmitter

## Characteristic Diagrams

Fig. 1  $I_F - V_F$

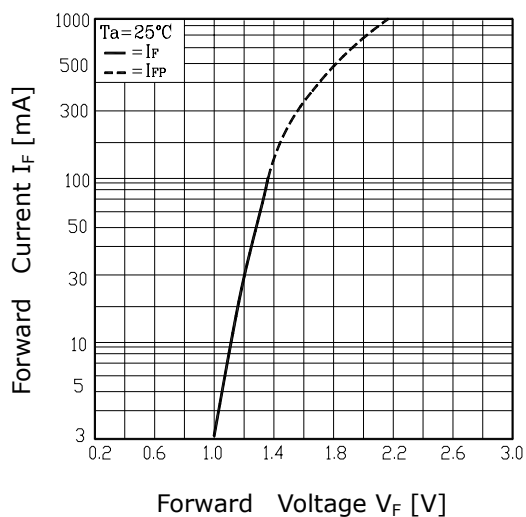


Fig. 2  $I_E - I_F$

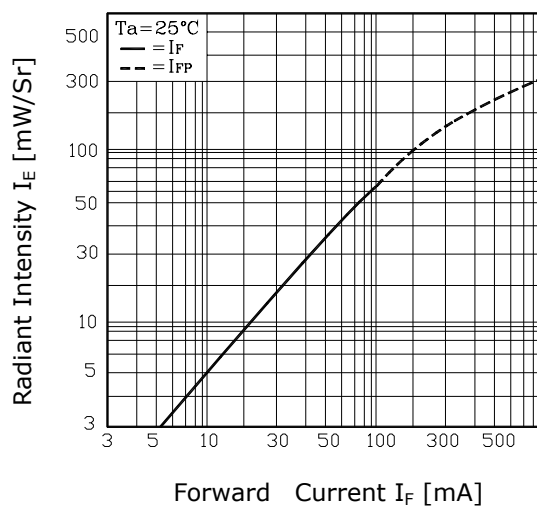


Fig. 3  $I_F - T_a$

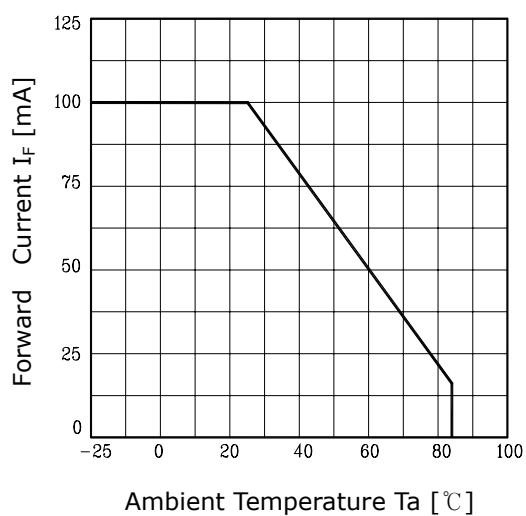


Fig. 4 Spectrum Distribution

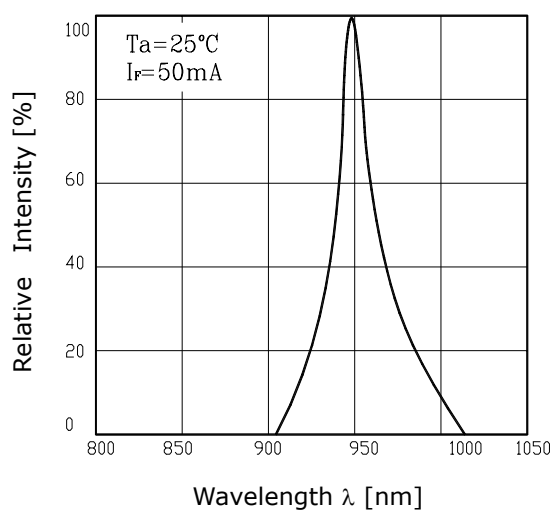
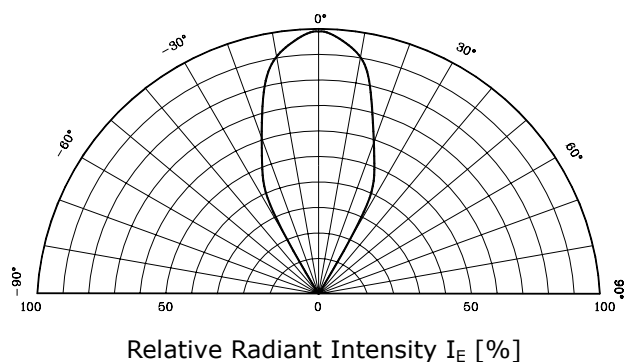


Fig. 5 Radiation Diagram



**The AUK Corp. products are intended for the use as components in general electronic equipment (Office and communication equipment, measuring equipment, home appliance, etc.).**

**Please make sure that you consult with us before you use these AUK Corp. products in equipments which require high quality and / or reliability, and in equipments which could have major impact to the welfare of human life(atomic energy control, airplane, spaceship, transportation, combustion control, all types of safety device, etc.). AUK Corp. cannot accept liability to any damage which may occur in case these AUK Corp. products were used in the mentioned equipments without prior consultation with AUK Corp..**

**Specifications mentioned in this publication are subject to change without notice.**