

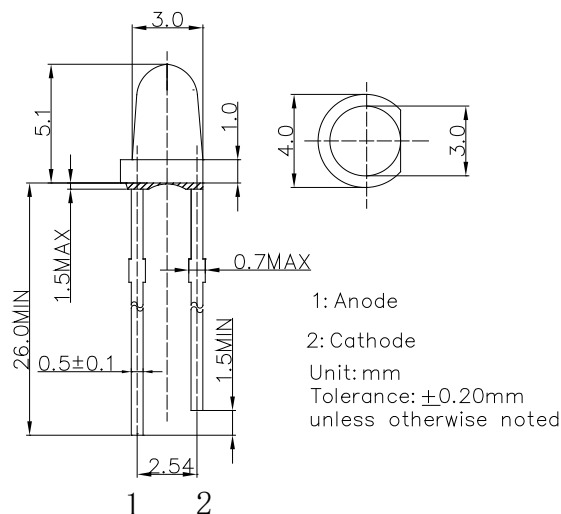
## ■ Features

- Ultra Bright LED
- 3mm Bullet Standard Directivity
- Long Lifetime Operation
- UV Resistant Epoxy
- Water Clear Type

## ■ Applications

- Backlighting (illuminated advertising etc.)
- Substitution of Micro Incandescent Lamps
- Reading Lamps / Emergency Lighting
- Marker lights (e.g. steps, exit ways, etc.)

## ■ Outline Dimension



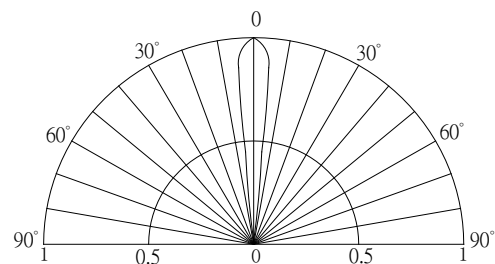
## ■ Absolute Maximum Rating

( $T_a=25^\circ\text{C}$ )

| Item                       | Symbol    | Value                           | Unit             |
|----------------------------|-----------|---------------------------------|------------------|
| DC Forward Current         | $I_F$     | 50                              | mA               |
| Pulse Forward Current#     | $I_{FP}$  | 120                             | mA               |
| Reverse Voltage            | $V_R$     | 5                               | V                |
| Power Dissipation          | $P_D$     | 150                             | mW               |
| Operating Temperature      | $T_{opr}$ | $-30 \sim +85$                  | $^\circ\text{C}$ |
| Storage Temperature        | $T_{stg}$ | $-40 \sim +100$                 | $^\circ\text{C}$ |
| Lead Soldering Temperature | $T_{sol}$ | $260^\circ\text{C}/5\text{sec}$ | -                |

#Pulse width Max 10ms , Duty ratio max 1/10

## ■ Directivity



## ■ Electrical -Optical Characteristics

( $T_a=25^\circ\text{C}$ )

| Item                       | Symbol          | Condition         | Min.  | Typ.  | Max.  | Unit          |
|----------------------------|-----------------|-------------------|-------|-------|-------|---------------|
| DC Forward Voltage*1       | $V_F$           | $I_F=20\text{mA}$ | -     | 2.7   | 3.0   | V             |
| DC Reverse Current         | $I_R$           | $V_R=5\text{V}$   | -     | -     | 10    | $\mu\text{A}$ |
| Luminous Flux*2            | $\Phi_v$        | $I_F=20\text{mA}$ | 9     | 11    | -     | lm            |
| Luminous Intensity*3       | $I_v$           | $I_F=20\text{mA}$ | 60000 | 70000 | -     | mcd           |
| Color Temperature*4        | CCT             | $I_F=20\text{mA}$ | 8500  | 10000 | 18000 | K             |
| Chromaticity Coordinates*5 | x               | $I_F=20\text{mA}$ | -     | 0.27  | -     |               |
|                            | y               | $I_F=20\text{mA}$ | -     | 0.28  | -     |               |
| 50% Power Angle            | $2\theta_{1/2}$ | $I_F=20\text{mA}$ | -     | 15    | -     | deg           |

\*1 Tolerance of measurements of forward voltage is  $\pm 0.1\text{V}$

\*2 Tolerance of measurements of luminous flux is  $\pm 15\%$

\*3 Tolerance of measurements of luminous intensity is  $\pm 15\%$

\*4 Tolerance of measurements of color temperature is  $\pm 10\%$

\*5 Tolerance of measurements of chromaticity coordinates is  $\pm 10\%$