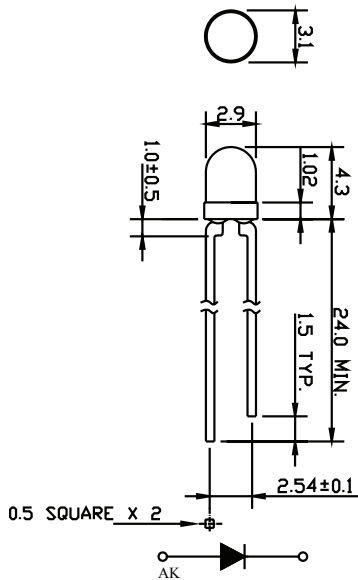


# 2.9mm Round LED Lamp



## Package Dimensions:



## Features:

- Red lamp
- Made with AlGaAs / GaAs chip and red clear epoxy resin

All dimensions are in mm  
Tolerance:  $\pm 0.25\text{mm}$

## Absolute Maximum Ratings at $T_a=25^\circ\text{C}$

| Parameter                                           | Symbol       | Rating                                                                                        | Unit             |
|-----------------------------------------------------|--------------|-----------------------------------------------------------------------------------------------|------------------|
| Power Dissipation                                   | $P_D$        | 66                                                                                            | mW               |
| Reverse Voltage                                     | $V_R$        | 4                                                                                             | V                |
| D.C. Forward Current                                | $I_f$        | 30                                                                                            | mA               |
| Reverse (Leakage) Current                           | $I_r$        | 100                                                                                           | $\mu\text{A}$    |
| Peak Current (1 / 10 Duty Cycle, 0.1ms Pulse Width) | $I_f$ (Peak) | 100                                                                                           | mA               |
| Operating Temperature Range                         | $T_{opr}$    | -25 to + 85                                                                                   | $^\circ\text{C}$ |
| Storage Temperature Range                           | $T_{stg}$    | -40 to +100                                                                                   | $^\circ\text{C}$ |
| Soldering Temperature (1.6mm from body)             | $T_{sol}$    | Dip Soldering: $260^\circ\text{C}$ for 5sec.<br>Hand Soldering: $350^\circ\text{C}$ for 3sec. |                  |

# 2.9mm Round LED Lamp



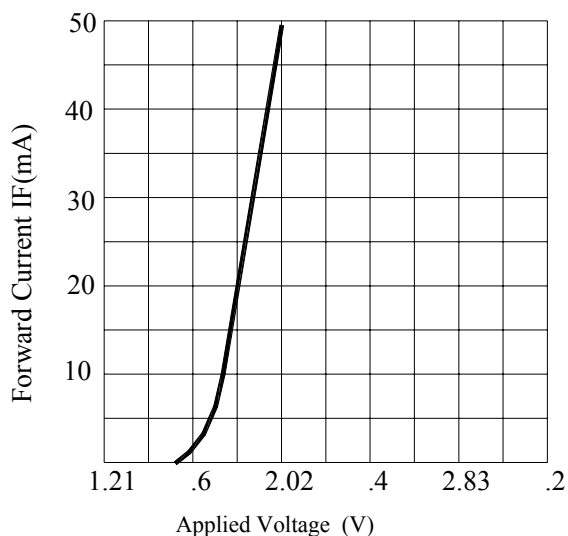
## Electrical & Optical Characteristics:

| Parameter                 | Symbol          | Condition           | Min. | Typ. | Max. | Unit          |
|---------------------------|-----------------|---------------------|------|------|------|---------------|
| Luminous Intensity        | $I_v$           | $I_f = 20\text{mA}$ | 30   | 70   |      | mcd           |
| Forward Voltage           | $V_f$           | $I_f = 20\text{mA}$ |      | 1.8  | 2.2  | V             |
| Peak Wavelength           | $\lambda_p$     | $I_f = 20\text{mA}$ |      | 660  |      | nm            |
| Dominant Wavelength       | $\lambda_d$     | $I_f = 20\text{mA}$ |      | 643  |      | nm            |
| Reverse (Leakage) Current | $I_r$           | $V_r = 5\text{V}$   |      |      | 100  | $\mu\text{A}$ |
| Viewing Angle             | $2\theta_{1/2}$ | $I_f = 20\text{mA}$ |      | 40   |      | deg           |
| Spectrum Line Halfwidth   | $\Delta\lambda$ | $I_f = 20\text{mA}$ |      | 20   |      | nm            |

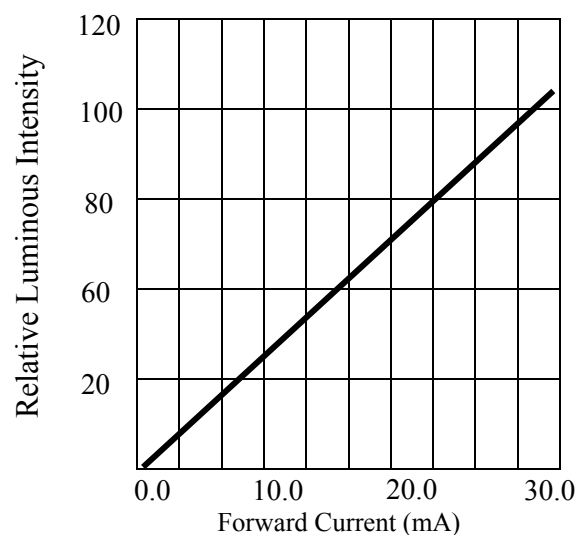
Notes: 1. The data is tested by IS tester.

2. Customer's special requirements are also welcome.

## Typical Electrical & Optical Characteristics Curves:

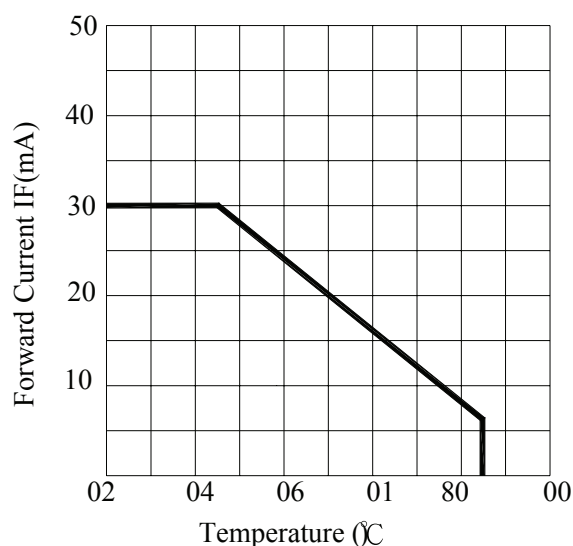


**FORWARD CURRENT VS. APPLIED VOLTAGE**

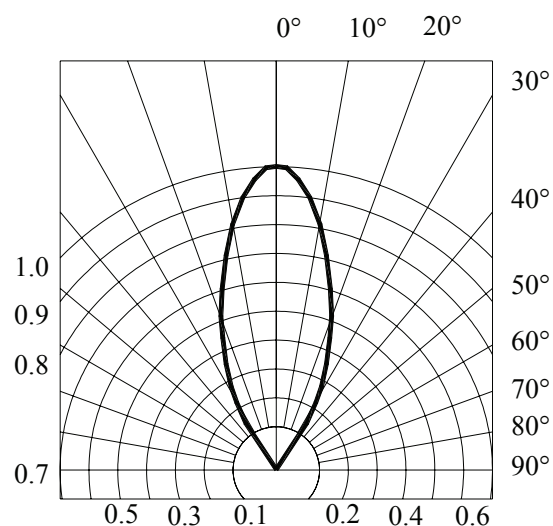


**FORWARD CURRENT VS. LUMINOUS INTENSITY**

# 2.9mm Round LED Lamp



**FORWARD CURRENT VS. AMBIENT TEMPERATURE**



**RADIATION DIAGRAM**

## Part Number Table

| LED Chip      |                 | Lens Colour | Part Number |
|---------------|-----------------|-------------|-------------|
| Material      | Emitting Colour |             |             |
| AlGaAs / GaAs | Red             | Red clear   | 703-0095    |

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