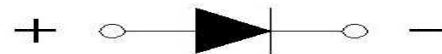
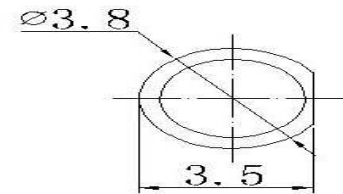
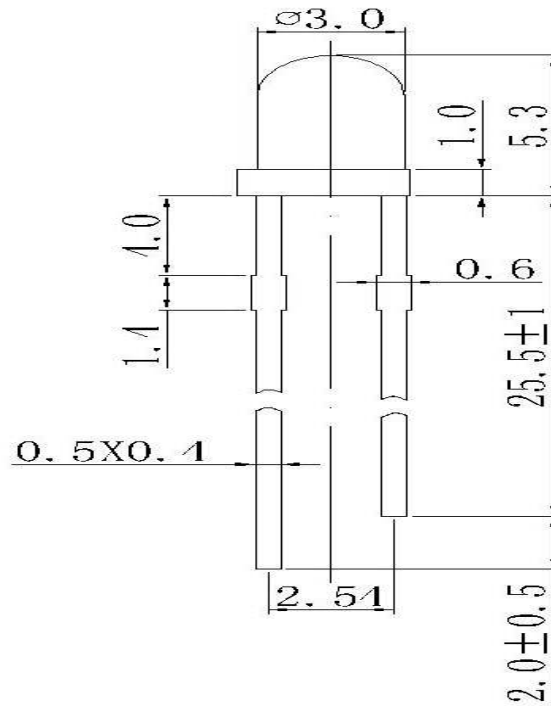




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## Specification for LED Product 3AY4UD09

Package Dimensions(mm)



Notes:

All dimension units are millimeters.

All dimension tolerance is  $\pm 0.2$ mm unless otherwise noted.

An epoxy meniscus may extend about 1.5mm down the leads.

Burr around bottom of epoxy may be 0.5mm max.

Synopsis:

3mm Round Type  
Yellow LED Lamp

Yellow Diffused Lens



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| <b>Typ 3AY4UD09</b>                                     |        |                          |      |      |      |      |
|---|--------|--------------------------|------|------|------|------|
| Typical Electrical & Optical Characteristics (Ta = 25°) |        |                          |      |      |      |      |
| ITEMS   | SYMBOL | CONDITION                | MIN. | TYP. | MAX. | UNIT |
| Forward Voltage   | VF     | IF = 20mA                | 1.4  | 1.9  | 2.4  | V    |
| Reverse Current   | IR     | VR = 5V                  | ---  | ---  | 1.1  | μA   |
| Dominant Wavelength                                     | λD     | IF = 20mA                | 586  | ---  | 590  | nm   |
| Luminous Intensity                                      | IV     | IF = 20mA                | 159  | 210  | 284  | mcd  |
| 50% Power Viewing Angle                                 | 2θ½    | IF = 20mA                | ---  | 53   | ---  | deg  |
| Absolute Maximum Ratings at (Ta = 25□)                  |        |                          |      |      |      |      |
| ITEMS   | SYMBOL | ABSOLUTE MAXIMUM RATING  |      |      |      | UNIT |
| Forward Current   | IF     | 50                       |      |      |      | mA   |
| Peak Forward Current                                    | IFP    | 220                      |      |      |      | mA   |
| Continuous Forward Current                              | IL     | 20                       |      |      |      | mA   |
| Reverse Voltage   | VR     | 5                        |      |      |      | V    |
| Power Dissipation                                       | PD     | 95                       |      |      |      | mW   |
| Operation Temperature                                   | Topr   | -40 ~ +80                |      |      |      | °C   |
| Storage Temperature                                     | Tstg   | -40 ~ +80                |      |      |      | °C   |
| Lead Soldering Temperature                              | Tsol   | Max.260°C for 5 sec Max. |      |      |      |      |

IFP Conditions Pulse Width 10msec duty 1/10

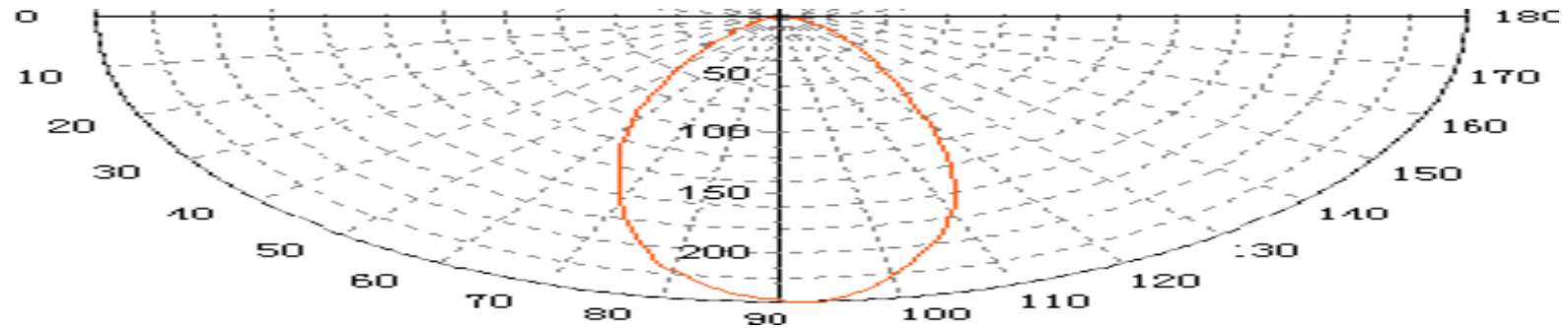
Tsol Conditions 4mm from the base of the epoxy bulb



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### 3AY4UD09

Spatial Distribution



Reliability Performance

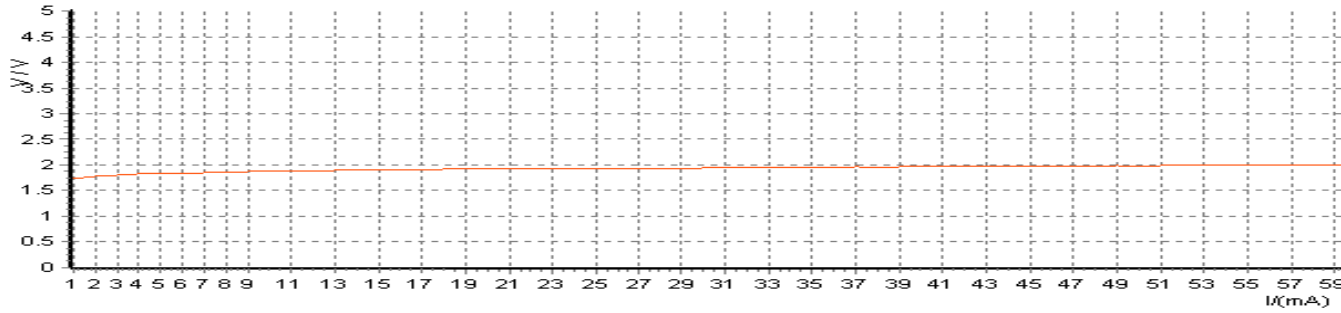
| Test Classification | Test Item                                | Test Conditions  | Test Duration | Sample Size | Standard |
|---------------------|--|--|---------------|-------------|----------|
| Life Test           | Life Test                                | $T_a=25^{\circ}\pm 5\%$ / IF=20mA  | 1000(hrs)     | 10PCS       |          |
| Environment Test    | Thermal Shock Test                       | $-10^{\circ}\pm 5\% \leftrightarrow +100^{\circ}\pm 5\%$<br>5min. 10sec. 5min. | 100(cycles)   | 10PCS       |          |
|                     | Temperature Cycle Test                   | $-55^{\circ}\pm 5\% \leftrightarrow +85^{\circ}\pm 5\%$<br>30min. 5min. 30min. | 100(cycles)   | 10PCS       |          |
|                     | High Temperature C<br>High Humidity Test | $T_a=85^{\circ}\pm 5\%$<br>RH =85%±0.5 %RH                                     | 240(hrs)      | 10PCS       |          |
|                     | High Temperature<br>Storage              | $T_a=100^{\circ}\pm 5\%$   | 1000(hrs)     | 10PCS       |          |
|                     | Low Temperature<br>Storage               | $T_a=-55^{\circ}\pm 5\%$   | 1000(hrs)     | 10PCS       |          |
| Mechanical Test     | Resistance to<br>Soldering Heat          | $T_a=260^{\circ}\pm 5\%$   | 5 (sec.)      | 10PCS       |          |
|                     | Lead Integrity                           | 0.25 kg<br>$0^{\circ} \sim 90^{\circ} \sim 0^{\circ}$                          | 3 (times)     | 10PCS       |          |



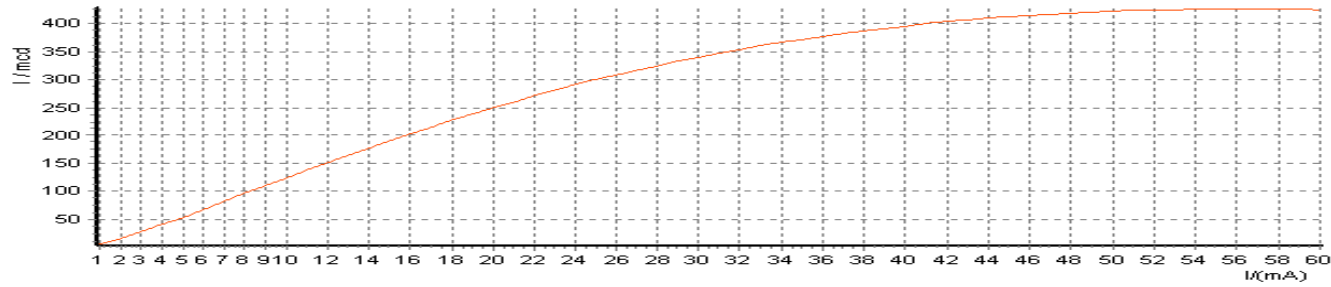
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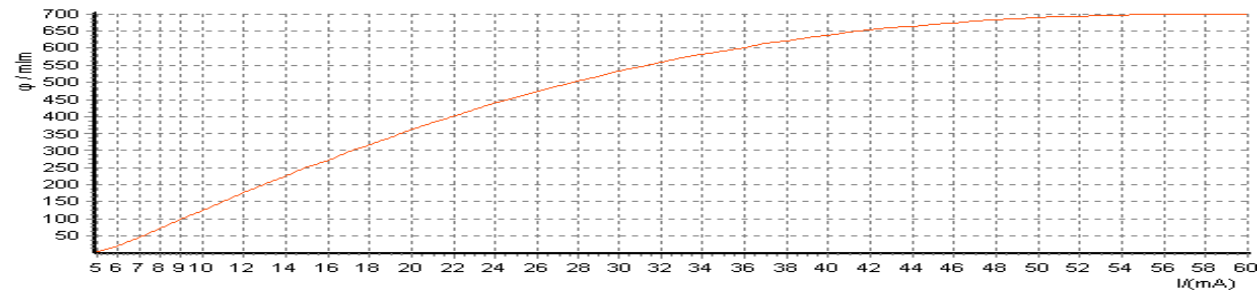
Typical Optical/Electrical Characteristics Curves (Ta=25° Unless Otherwise Noted)



Current-Voltage Curve



Current-Luminous intensity Curve



Current-Luminous flux Curve

# Hubei Kento Electronic Co., Ltd

3AY4UD09

