

# PRODUCT SPECIFICATION



**Part No.: WL-P5EP4545B60-440**  
**High Power LED**

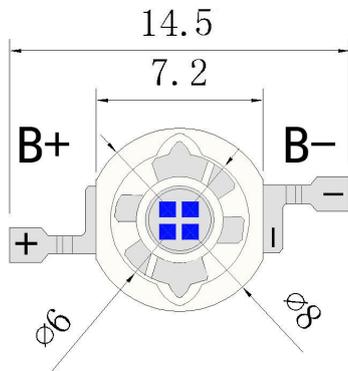
## Catalog

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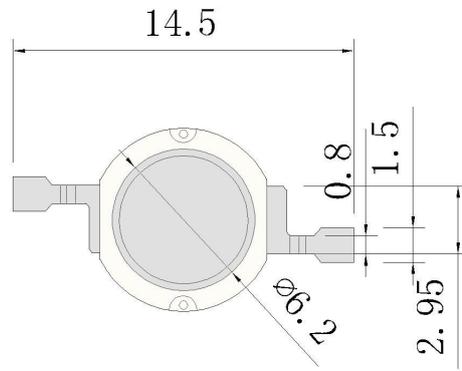
## 1.Product Features

- High Brightness Blue LED
- Round Package
- Viewing Angle 60 Degree
- Transparent Silicone
- Chip Material: AlGaInP
- RoHS Compliant

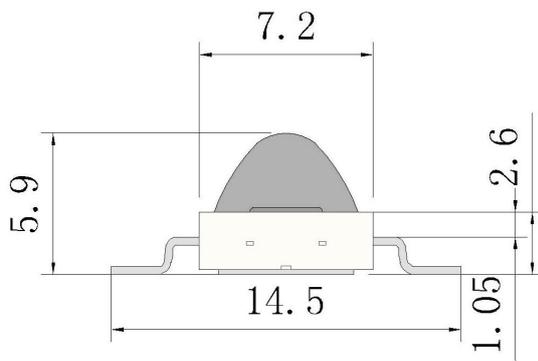
## 2.Dimensions



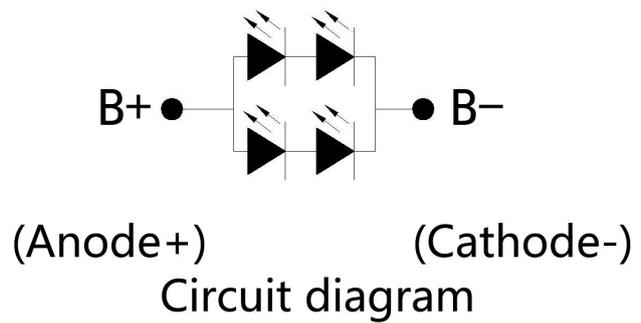
Top view



Bottom view



Side view



### Notes:

1. All dimensions are in millimeters.
2. Tolerance is  $\pm 0.1$ mm unless otherwise noted.

### 3. Absolute Maximum Rating @ Ta=25° C

| Parameter  | Symbol | Maximum Rating  | Unit |
|--|--------|-----------------|------|
| Continuous Forward Current                                   | IF     | 700             | mA   |
| Peak Forward Current<br>(1/10 Duty Cycle, 0.1ms Pulse Width) | IFp    | 1000            | mA   |
| Reverse Voltage  | VR     | 5               | V    |
| Power Dissipation  | PD     | 5               | W    |
| Electrostatic Discharge                                      | ESD    | 1000            | V    |
| Operating Temperature Range                                  | TOPR   | -25°C to +80°C  |      |
| Storage Temperature Range                                    | TSTG   | -35°C to +100°C |      |
| Lead Soldering Temperature                                   | TSOL   | 260°C           |      |

### 4. Optical Character @ Ta=25° C

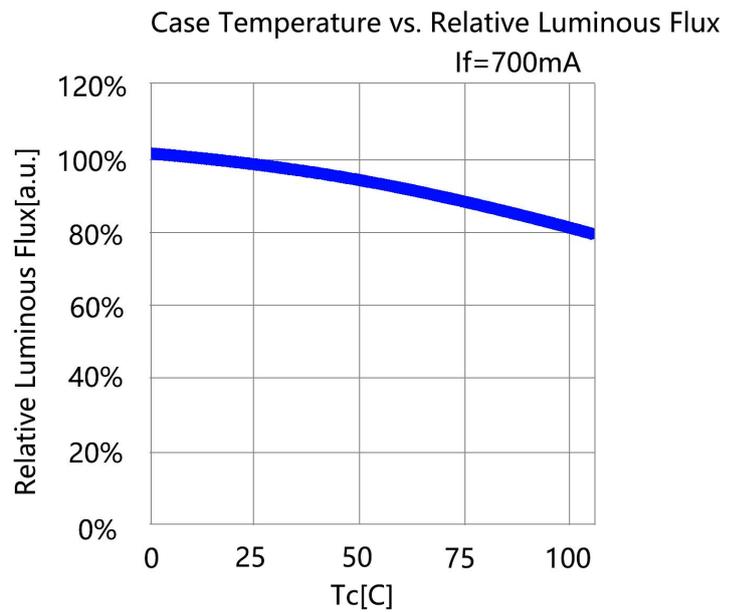
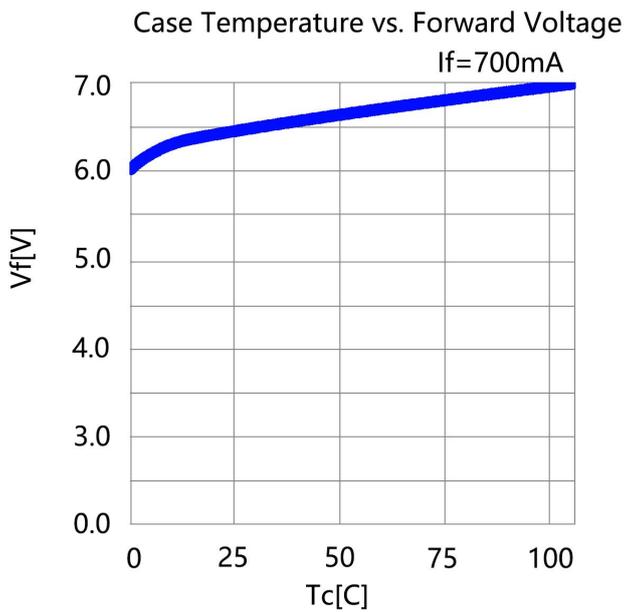
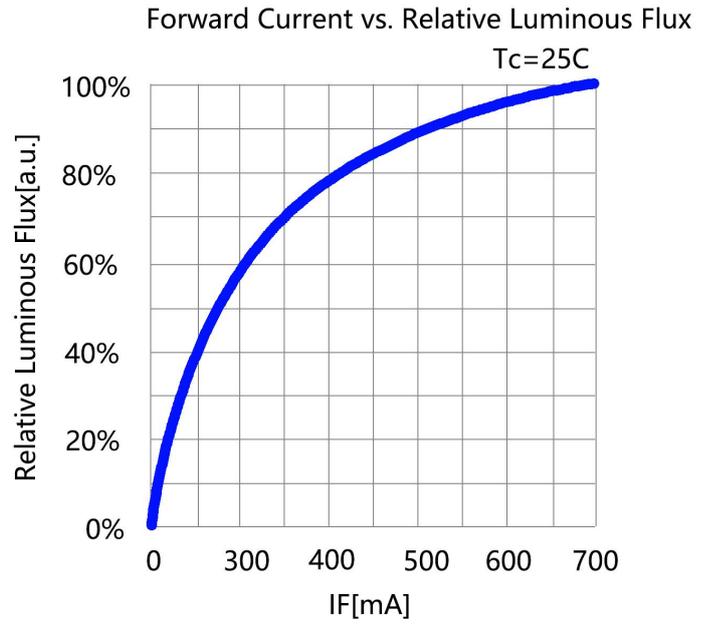
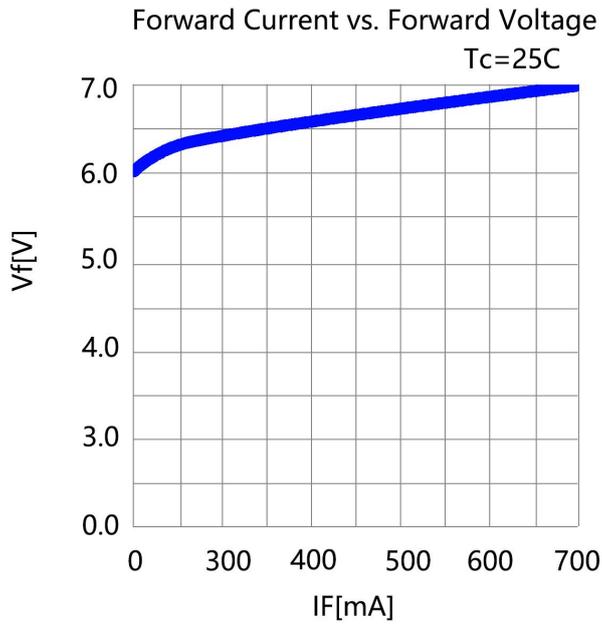
| Parameter                 | Symbol  | Color | Min. | Typ. | Max. | Unit | Test Condition |
|---------------------------|---------|-------|------|------|------|------|----------------|
| Forward Voltage           | VF      | B     | 6    |      | 7    | V    | IF=700mA       |
| Luminous Flux             | Φ       | B     | 80   |      | 120  | Lm   | IF=700mA       |
| Dominant Wavelength       | Wld     | B     | 440  | 443  | 445  | nm   | IF=700mA       |
| Reverse Current           | IR      |       | 0    |      | 10   | μA   | VR=5V          |
| Viewing Angle             | 2θ1/2   |       |      |      | 60   | deg  | IF=700mA       |
| Recommend Forward Current | IF(rec) | B     |      |      | 700  | mA   |                |

#### Notes:

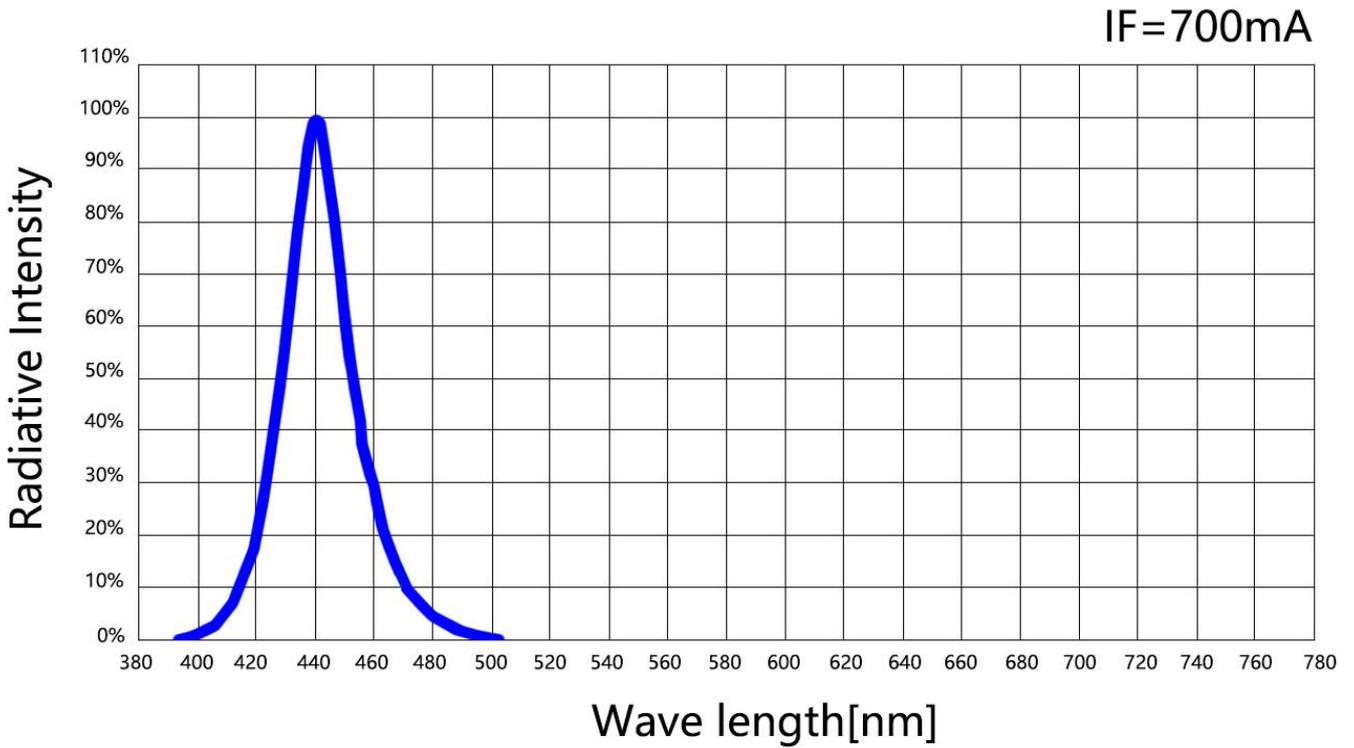
Measurement tolerance of forward voltage ±0.1V

## 5. Optical Character Curves

( 25 ° Ambient Temperature Unless Otherwise Noted )



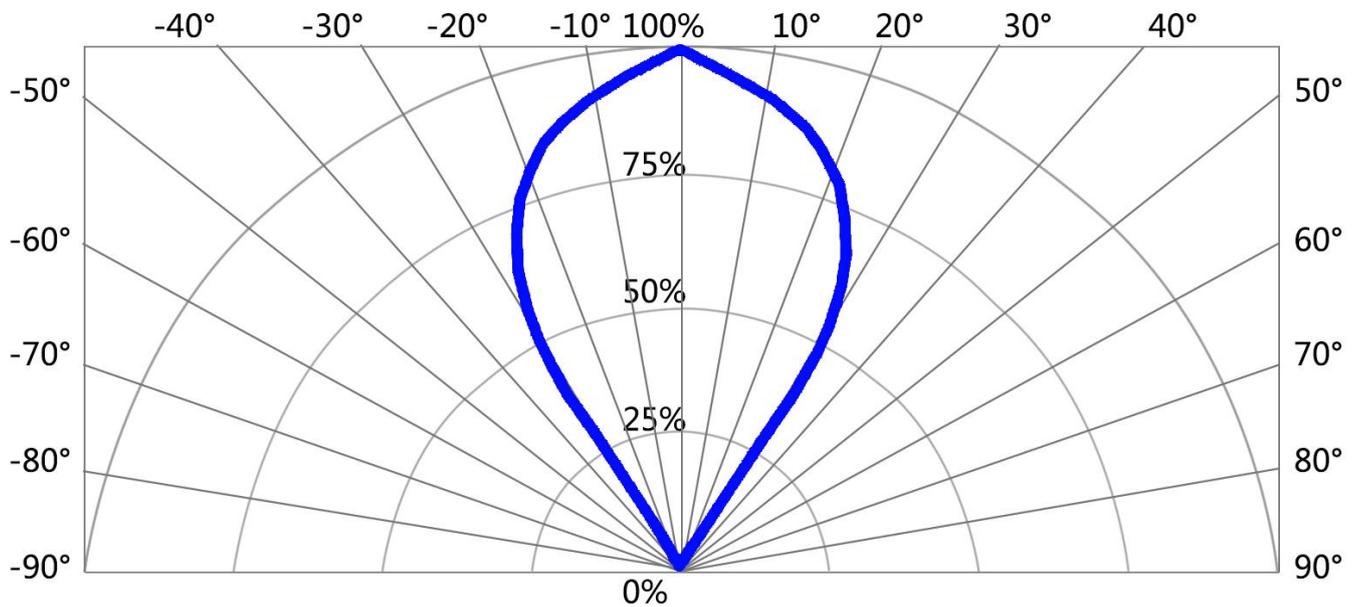
## 6. Spectrum Curves



## 7. Viewing Angle Curves

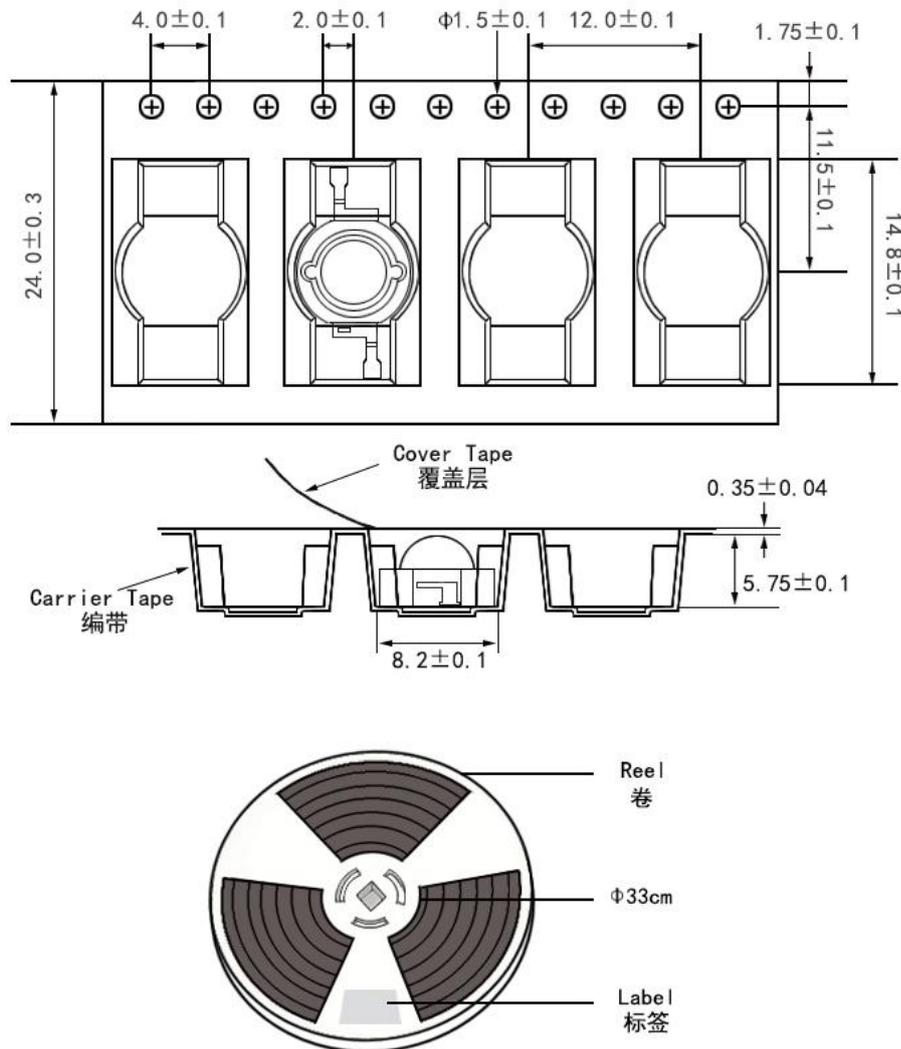
Radiation Characteristic

IF=700mA



## 8. Tape & Reel Packing

1. Recommend unpacked LED beads be welded within one day, if not, please vacuumize again and store in an environment of 20-35°C and 30-60% humidity. If can't vacuumize, please store LED beads in moisture proof box, control at 25°C±3°C, humidity 50-60%. If unpacked above 1 week, bake at 60±5°C for 10-12 hours before weld.



### Notes:

1. QTY: 700pcs/Reel
2. Tolerance ±0.2mm.
3. Package: P/N

## 9. Cautions

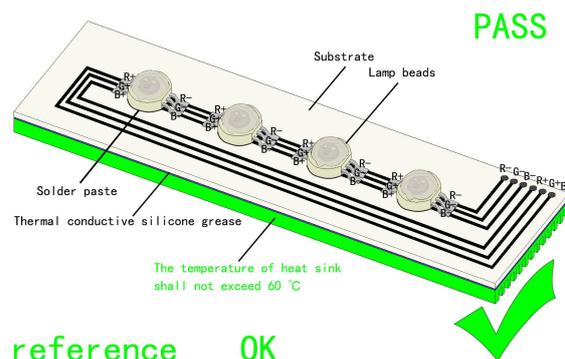
### 1. Electrostatic Treatment

Do a full range of anti-static measures (such as: anti-static ring, anti-static clothes, machine, equipment grounding wire, etc.)



### 2. Heat Dissipation

- A、 It is recommend to configure reasonable heat dissipation device for the product.
- B、 The best working temperature range of the product is 40-60°. It is recommended to control the working temperature of the product within a reasonable range.



### 3. Installation Conditions

A、 Do not exert any pressure on the LED area during the use of the led beads. If the machine is used to take materials, select a suction nozzle of reasonable size, such as below:

