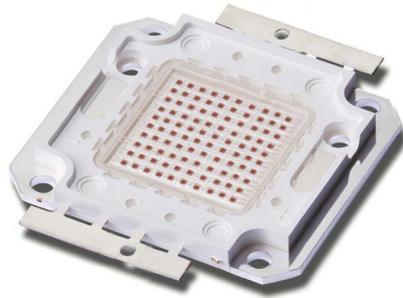


# PRODUCT SPECIFICATION



**Part No.: WL-P100EP4242R140-650**

**High Power LED**

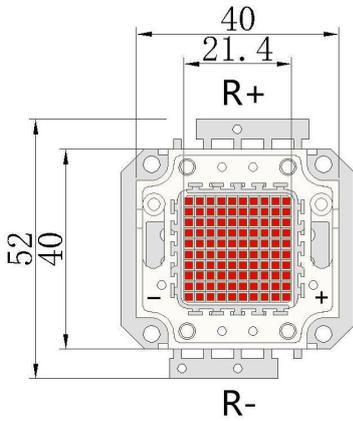
## Catalog

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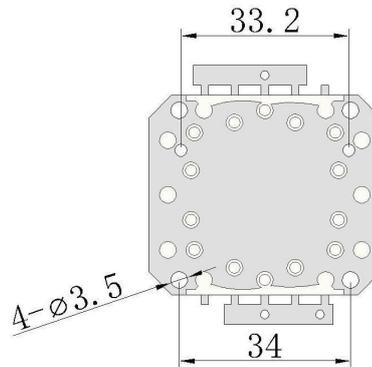
## 1.Product Features

- High Brightness Red LED Plane
- Chip Material: AlGaInP
- Package
- RoHS Compliant
- Viewing Angle 140 Degree

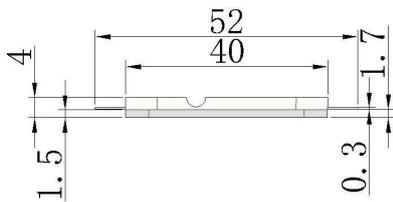
## 2.Dimensions



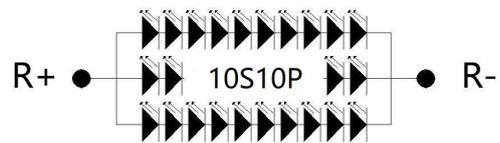
Top view



Bottom view



Side view



(Anode+)

(Cathode-)

Circuit diagram

### Notes:

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

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

| Parameter  | Symbol | Maximum Rating  | Unit |
|--|--------|-----------------|------|
| Continuous Forward Current                                   | IF     | 3500            | mA   |
| Peak Forward Current<br>(1/10 Duty Cycle, 0.1ms Pulse Width) | IFp    | 3700            | mA   |
| Reverse Voltage  | VR     | 34              | V    |
| Power Dissipation  | PD     | 75              | 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   | 350°C           |      |

### 4. Optical Character @ Ta=25° C

| Parameter                 | Symbol  | Color | Min. | Typ.  | Max. | Unit | Test Condition |
|---------------------------|---------|-------|------|-------|------|------|----------------|
| Forward Voltage           | VF      | R     | 20   | 21    | 22   | V    | IF=3500mA      |
| Luminous Flux             | Φ       | R     | 3000 | 3500  | 4000 | LM   | IF=3500mA      |
| Peak Wavelength           | WIP     | R     | 650  | 652.5 | 655  | nm   | IF=3500mA      |
| Reverse Current           | IR      |       | 0    |       | 10   | μA   | VR=34V         |
| Viewing Angle             | 2θ1/2   |       |      |       | 140  | deg  | IF=3500mA      |
| Recommend Forward Current | IF(rec) | R     |      |       | 3500 | mA   |                |

#### Notes:

Measurement tolerance of forward voltage ±0.1V

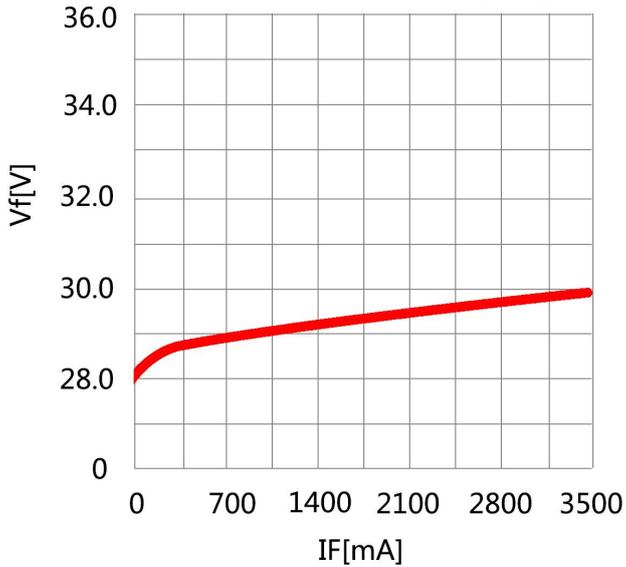


## 5. Optical Character Curves

( 25 ° Ambient Temperature Unless Otherwise Noted )

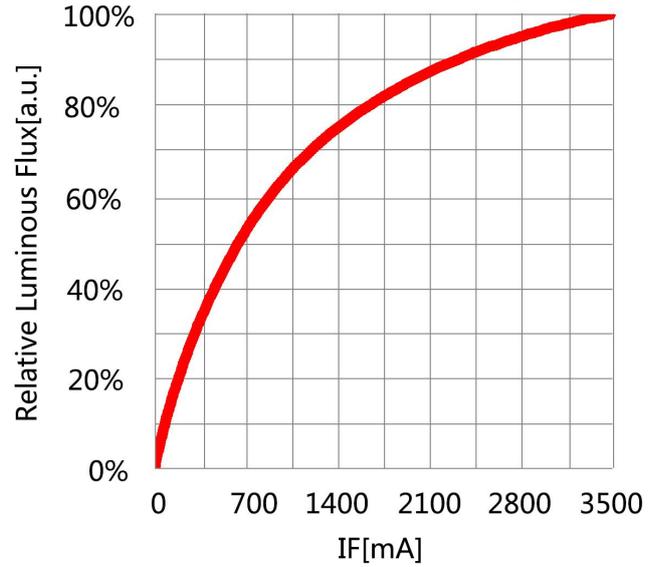
Forward Current vs. Forward Voltage

Tc=25C



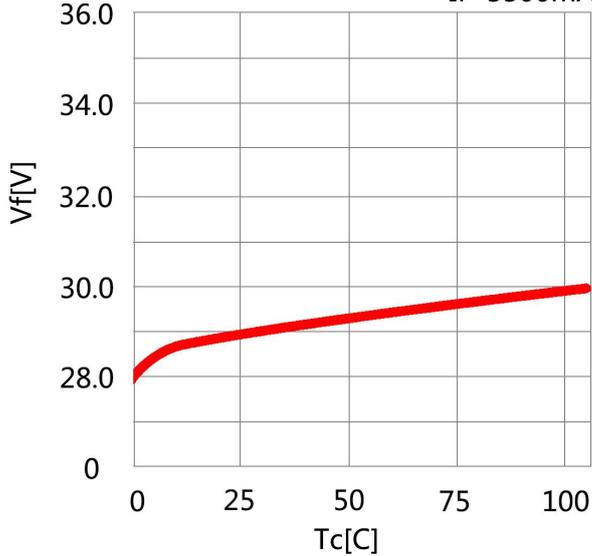
Forward Current vs. Relative Luminous Flux

Tc=25C



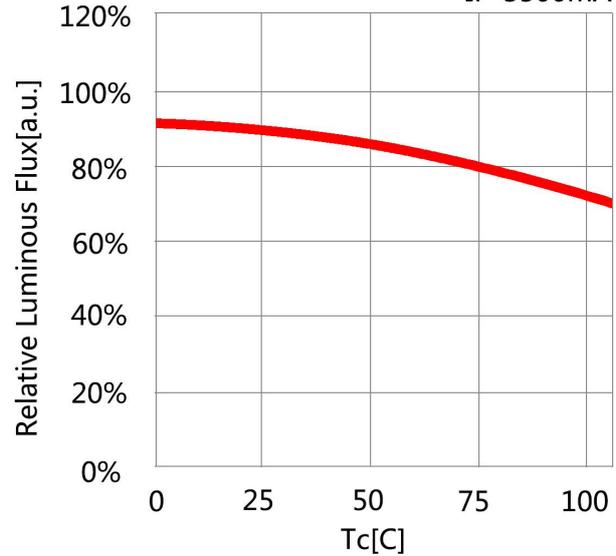
Case Temperature vs. Forward Voltage

If=3500mA

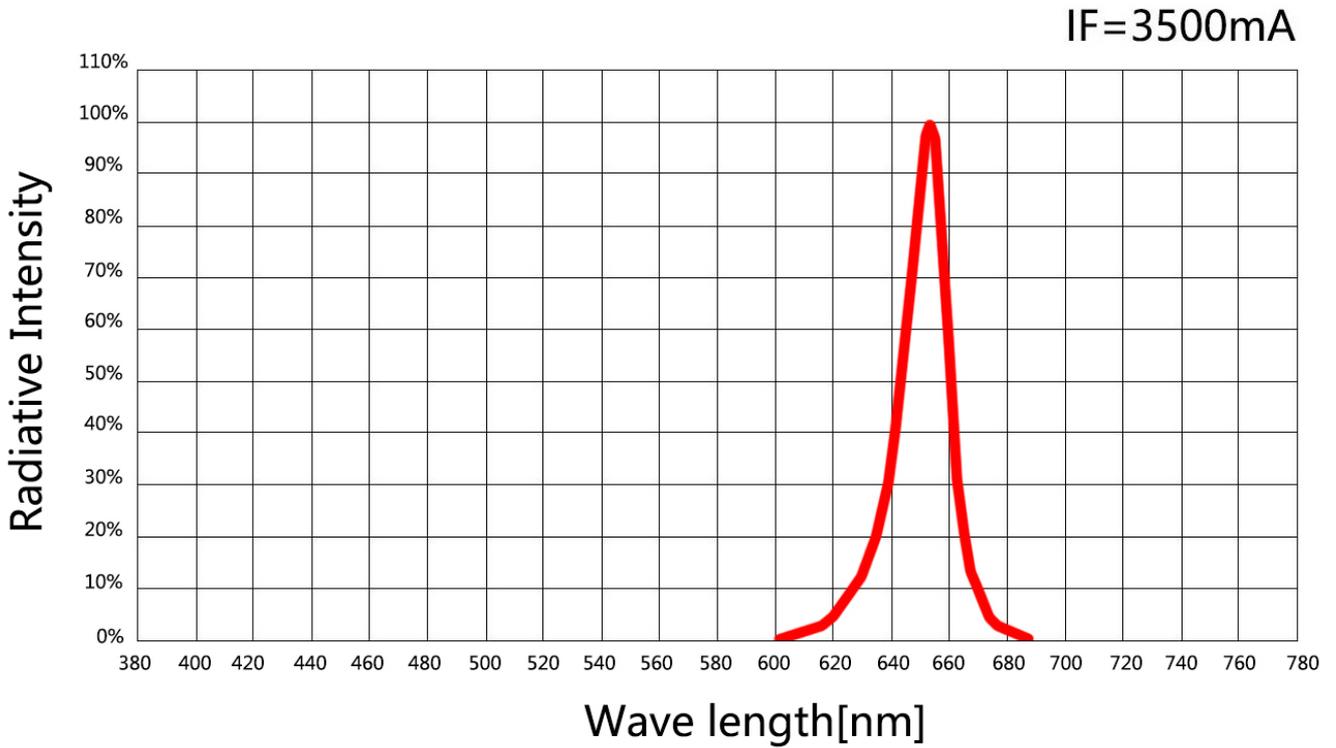


Case Temperature vs. Relative Luminous Flux

If=3500mA



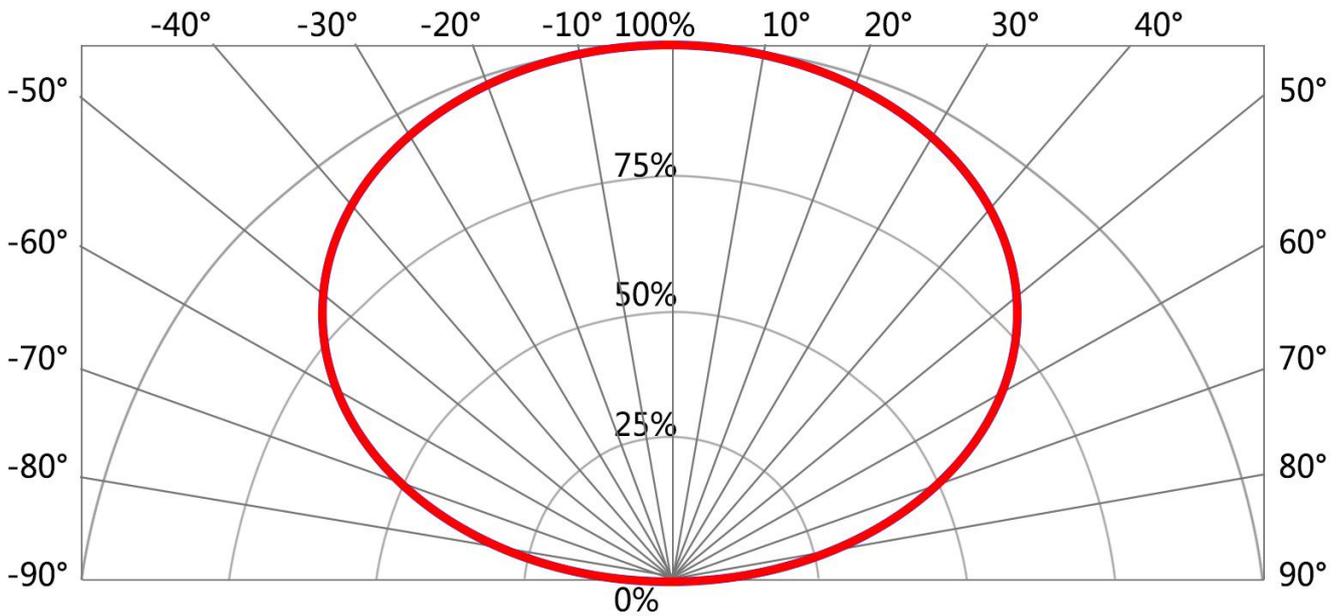
## 6. Spectrum Curves



## 7. Viewing Angle Curves

### Radiation Characteristic

IF=3500mA



## 8.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.

