

## ARPL-3W-EPA-RGB (350mA)



**ATTENTION**  
OBSERVE PRECAUTIONS  
FOR HANDLING  
ELECTROSTATIC  
DISCHARGE  
SENSITIVE  
DEVICES



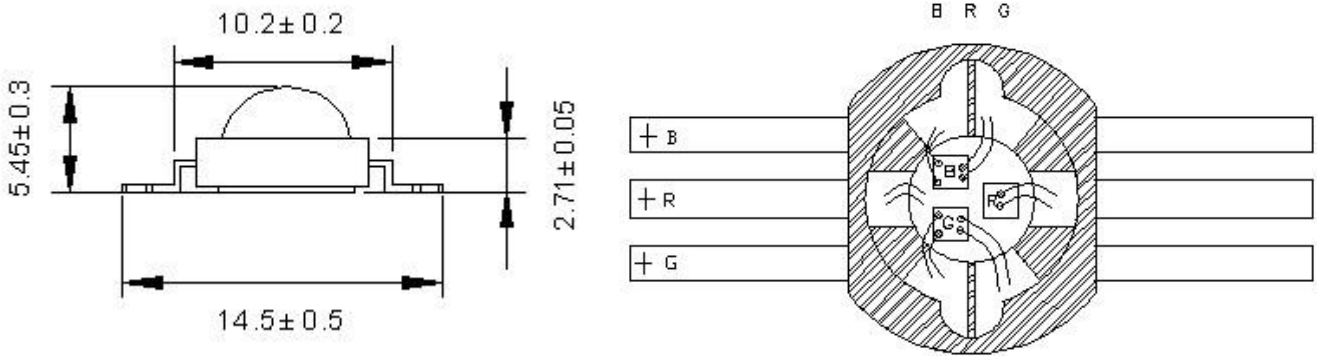
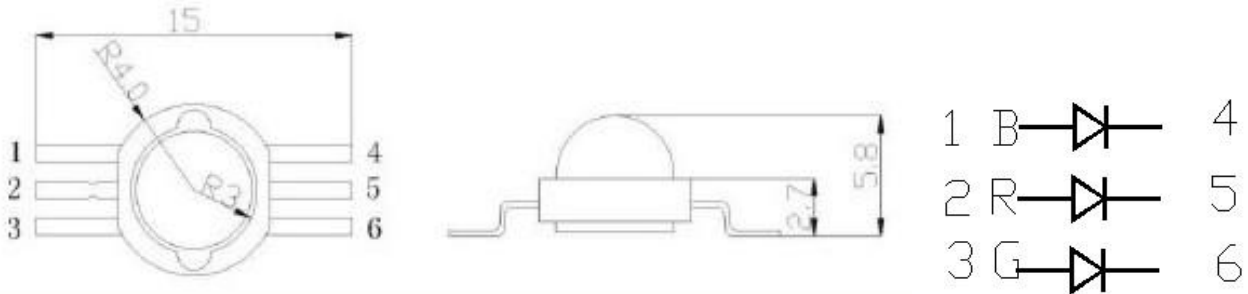
### Features

- Highest flux per LED family in the world
- Very long operating life (up to 100k hours)
- Available in White:2800K-25000K
- Lambertian radiation pattern
- More energy efficient than incandescent and most halogen lamps
- Low voltage DC operated
- Cool beam, safe to the touch
- Fully dimmable
- No UV
- Superior ESD protection
- lower  $R_{th}$
- RoHS compliant—lead-free
- Instant light (less than 100ns )

### Applications

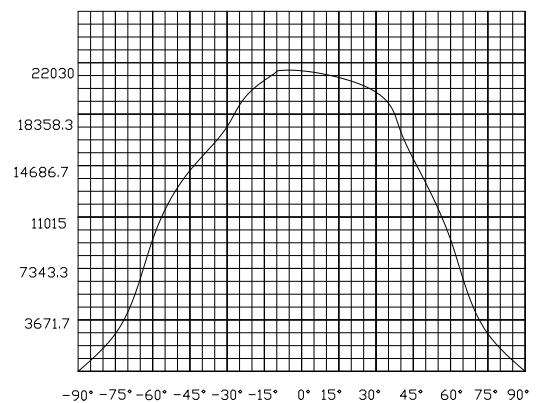
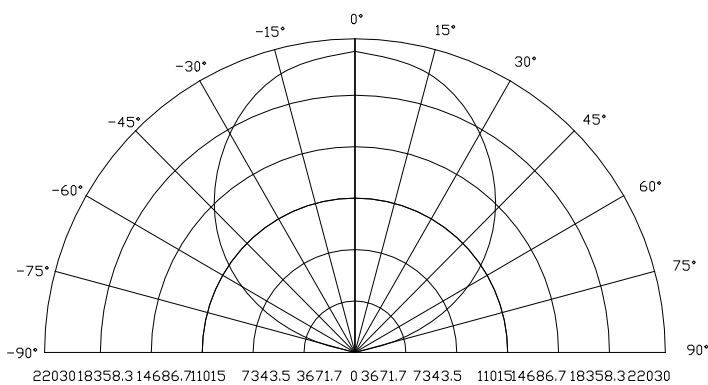
- Portable (flashlight, bicycle)
- Reading lights(car, bus, aircraft)
- Orientation
- Mini-accent
- Decorative
- Fiber optic alternative
- Appliance
- Sign and channel letter
- Architectural detail
- Cove lighting
- Automotive exterior (Stop-Tail-turn,HMSL, Mirror side repeat)
- Edge-lit signs(Exit, point of sale)

## Package Dimensions



Notes: All dimensions in mm tolerance is ±0.1mm unless otherwise noted.

## Radiation Pattern



## Absolute Maximum Ratings (T<sub>a</sub> = 25°C)

| Items                        | Symbol           | Absolute maximum Rating     |      | Unit |
|------------------------------|------------------|-----------------------------|------|------|
| DC Forward Current           | I <sub>F</sub>   | R                           | G/B  | mA   |
|                              |                  | 350                         | 350  |      |
| Peak Forward Current*        | I <sub>FP</sub>  | 700                         | 700  | mA   |
| Power Dissipation            | P <sub>D</sub>   | 770                         | 1120 | mW   |
| Operation Temperature        | T <sub>opr</sub> | -20 ~ +75                   |      | °C   |
| Storage Temperature          | T <sub>opr</sub> | -30 ~ +80                   |      | °C   |
| Manual Soldering Temperature | T <sub>SOL</sub> | 350°C± 10°C For 3~5 Seconds |      | °C   |

\*pulse width ≤0.1msec duty ≤1/10

## Typical Electrical & Optical Characteristics (T<sub>a</sub> = 25°C)

| Items                                     | Symbol           | Condition              | R(Typ) | G(Typ) | B(Typ) | Unit |
|---|------------------|------------------------|--------|--------|--------|------|
| Forward Voltage                           | V <sub>F</sub>   | I <sub>F</sub> = 350mA | 2.2    | 3.2    | 3.2    | V    |
| Reverse Current                           | I <sub>R</sub>   | V <sub>R</sub> = 5V    | 10     | 10     | 10     | μA   |
| Luminous Flux                             | Φ <sub>v</sub>   | I <sub>F</sub> = 350mA | 55     | 85     | 25     | lm   |
| Wave length                               | WD               | I <sub>F</sub> = 350mA | 625    | 525    | 465    | nm   |
| 50% Power Angle                           | 2 θ ½            | I <sub>F</sub> = 350mA | ---    | 140    | ---    | deg  |
| Thermal Resistance<br>(Junction to Board) | R <sub>J-B</sub> | I <sub>F</sub> = 350mA | ---    | 10     | ---    | °C/W |

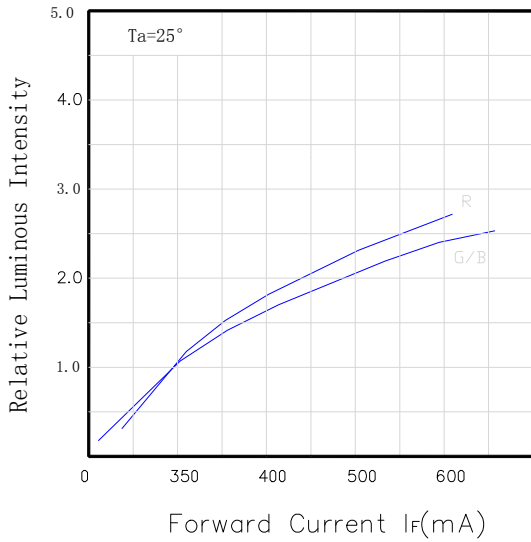
### Important Notes:

- 1) All ranks will be included per delivery, rank ratio will be determined by GMKJ.
- 2) Tolerance of measurement of V<sub>F</sub> is ±0.1 V.
- 3) Tolerance of measurement of the Wave length is ±1nm.
- 4) Tolerance of measurement of luminous intensity is ±10%.
- 5) As we are making continuous efforts to improve the performance of LED, Specifications are subject to change without notice.
- 6) Information is tentative and subject to change without notice.

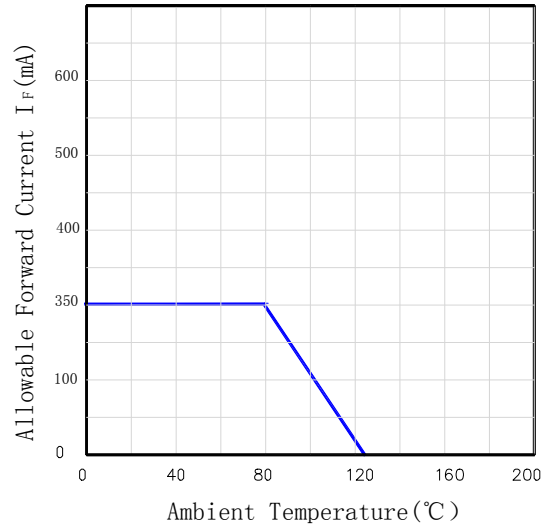
# Typical Optical/Electrical Characteristics Curves

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

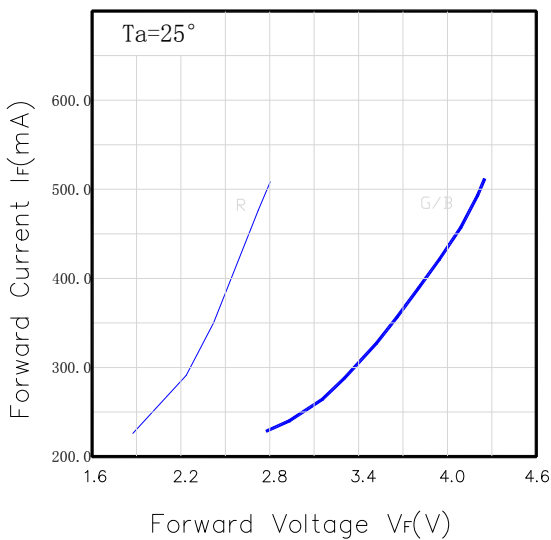
Relative Luminous Intensity -  $I_F$



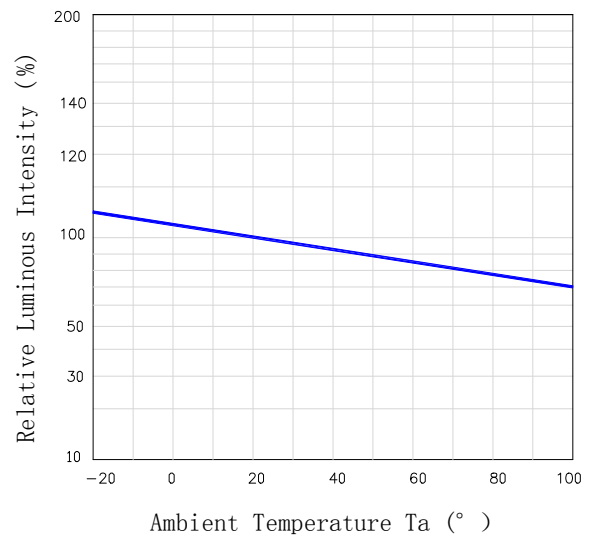
Allowable Forward Current -  $T_a$



$I_F - V_F$



Relative Luminous Intensity -  $T_a$



Wavelength Characteristics

