

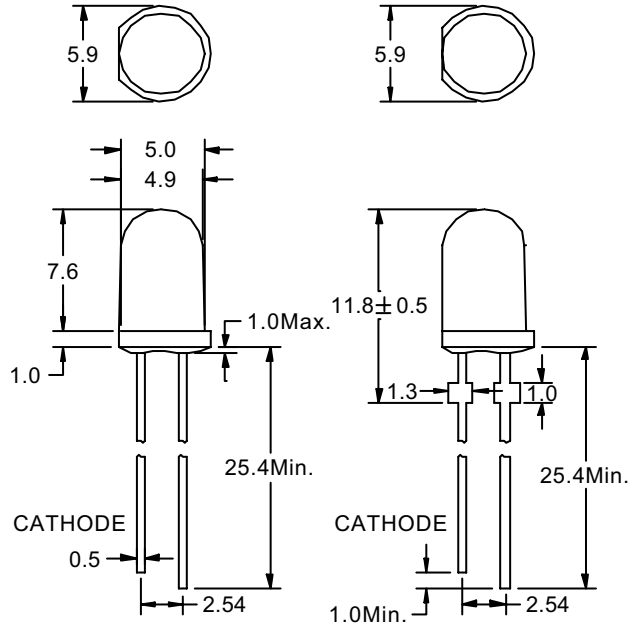
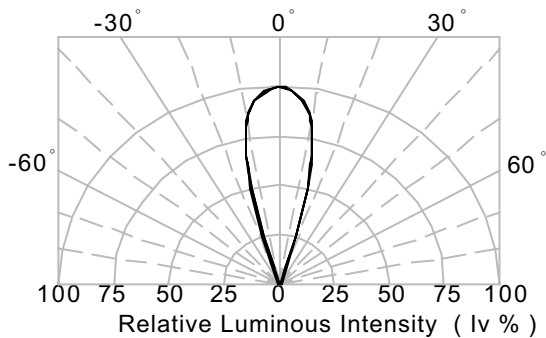
**BVU-5M5UG4**

**PACKAGE CONFIGURATION**

**DESCRIPTION**

Dice Material : AlGaInP/GaAs Yellow Green  
 Light Color : Yellow Green Color  
 Lens Color : Water Transparent  
 Stand-Off P/N : BVU-5M5UG4 R

**RADIATION PATTERN**



Tolerance ± 0.25 mm

**ABSOLUTE MAXIMUM RATINGS AT Ta = 25 °C**

| PARAMETER  | MAX.                 | UNIT  |
|--|----------------------|-------|
| Power Dissipation  | 80                   | mW    |
| Continuous Forward Current                                   | 30                   | mA    |
| Peak Forward Current ( 1/10 Duty Cycle , 0.1ms Pulse Width ) | 160                  | mA    |
| Reverse Voltage  | 5                    | V     |
| Derating Linear From 50 °C                                   | 0.4                  | mA/°C |
| Operating Temperature Range                                  | -40 °C to + 100 °C   |       |
| Storage Temperature Range                                    | -40 °C to + 100 °C   |       |
| Lead Solder Temperature 1.6 mm Below Package                 | 260 °C for 5 seconds |       |

**ELECTRICAL / OPTICAL CHARACTERISTICS AT Ta = 25 °C**

| SYMBOL            | PARAMETER                | TEST COND.             | MIN. | TYP. | MAX. | UNIT |
|-------------------|--------------------------|------------------------|------|------|------|------|
| V <sub>F</sub>    | Forward Voltage          | I <sub>F</sub> = 20 mA |      | 2.1  | 2.6  | V    |
| I <sub>R</sub>    | Reverse Current          | V <sub>R</sub> = 5V    |      |      | 100  | μA   |
| λ <sub>p</sub>    | Peak Emission Wavelength | I <sub>F</sub> = 20 mA |      | 575  |      | nm   |
| λ <sub>d</sub>    | Dominant Wavelength      | I <sub>F</sub> = 20 mA |      | 572  |      | nm   |
| 2θ <sub>1/2</sub> | Viewing Angle            | I <sub>F</sub> = 20 mA |      | 30   |      | Deg  |

**BIN GRADE LIMITS ( I F = 20 mA ) LUMINOUS INTENSITY / mcd**

| Bin  | G   | H   | I    | J    | K    | L    |
|------|-----|-----|------|------|------|------|
| Min. | 465 | 600 | 780  | 1000 | 1300 | 1680 |
| Max. | 600 | 780 | 1000 | 1300 | 1680 | 2180 |

Tolerance ± 15% mcd

\*Bright View reserves the rights to alter specifications and remove availability of products at any time without notice.

\*Dominant Wavelength, λ<sub>d</sub> is according to CIE Chromaticity Diagram base on color of lamps.

\*θ<sub>1/2</sub> is the off-axis angle where the luminous intensity is one half the on-axis intensity.



## BVU-5M5UG4

### TYPICAL ELECTRICAL / OPTICAL CHARACTERISTIC CURVES

FIG. 1 Forward Current vs. Forward Voltage  
( $T_a = 25^\circ\text{C}$ )

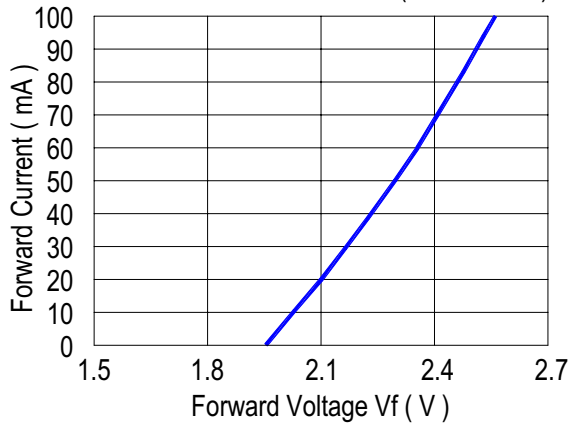


FIG. 2 Relative Intensity vs. Forward Current  
( $T_a = 25^\circ\text{C}$ )

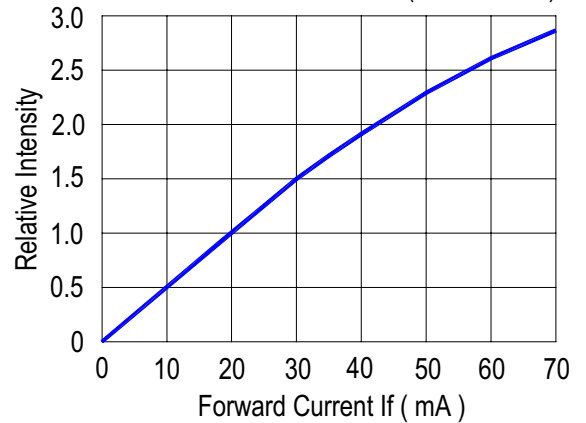


FIG. 3 Forward Voltage vs. Temperature

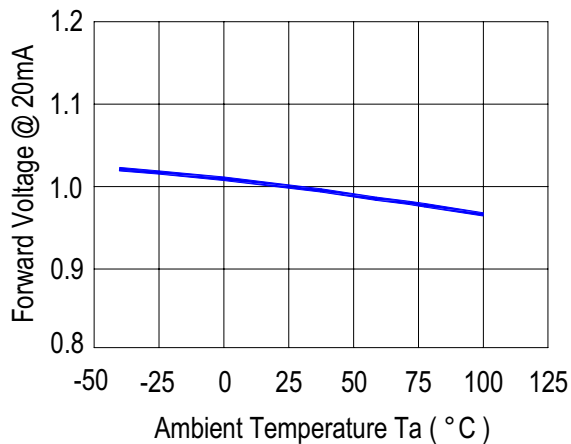


FIG. 4 Relative Intensity vs. Temperature

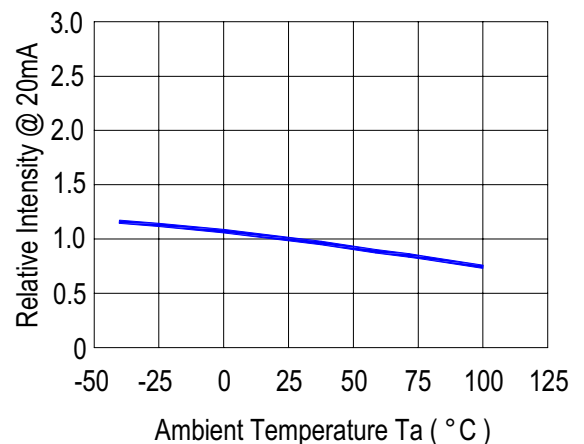


FIG. 5 Relative Intensity vs. Wavelength ( $\lambda_p$ )  
( $T_a = 25^\circ\text{C}$ )

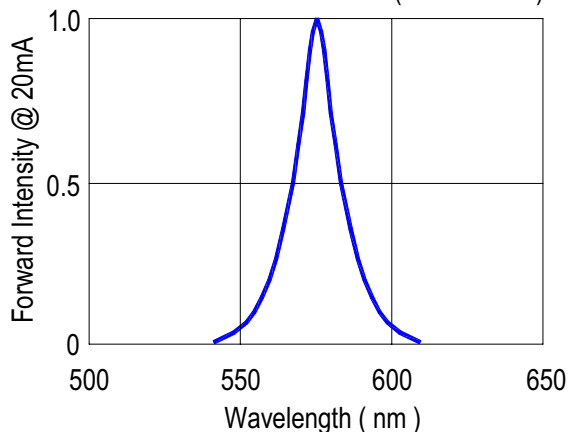
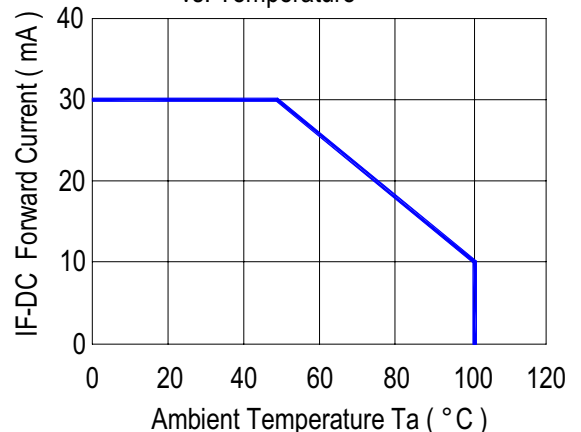


FIG. 6 Maximum Forward Current  
vs. Temperature





## Apply to LAMP(DIP) series.

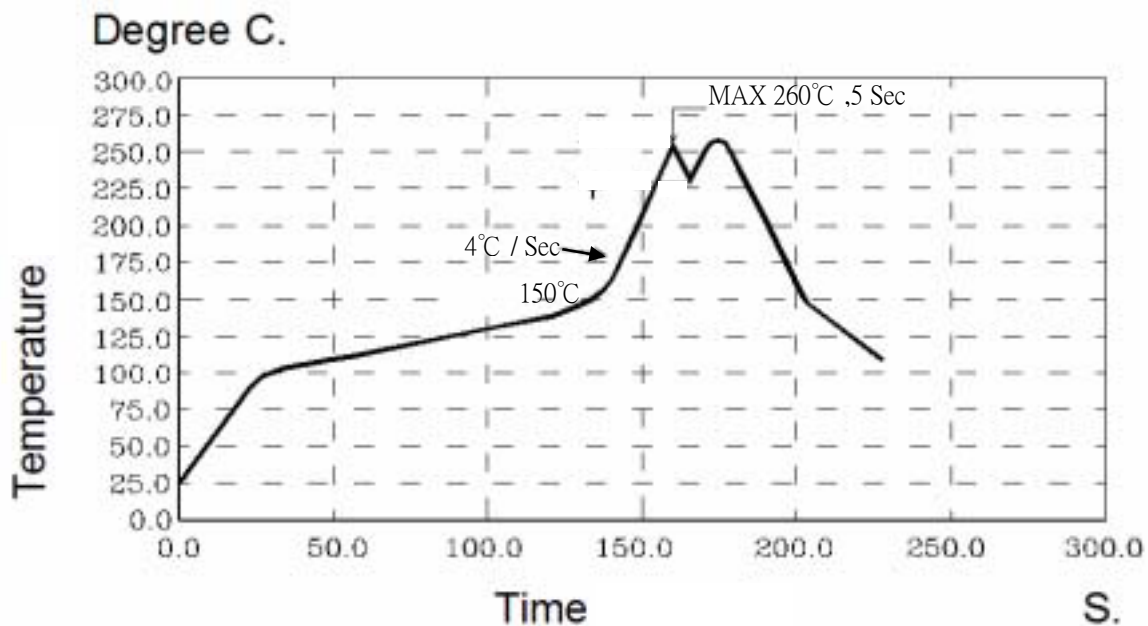
### Description:

#### (1) Manual soldering (Solder Iron)

- (1.1) Temperature at tip of the iron: 300°C Max.
- (1.2) It's banned to load any stress on the resin during soldering.
- (1.3) Soldering time: 3 sec. Max.(one time only)
- (1.4) Leave 3mm of minimum distance from the base of the epoxy.

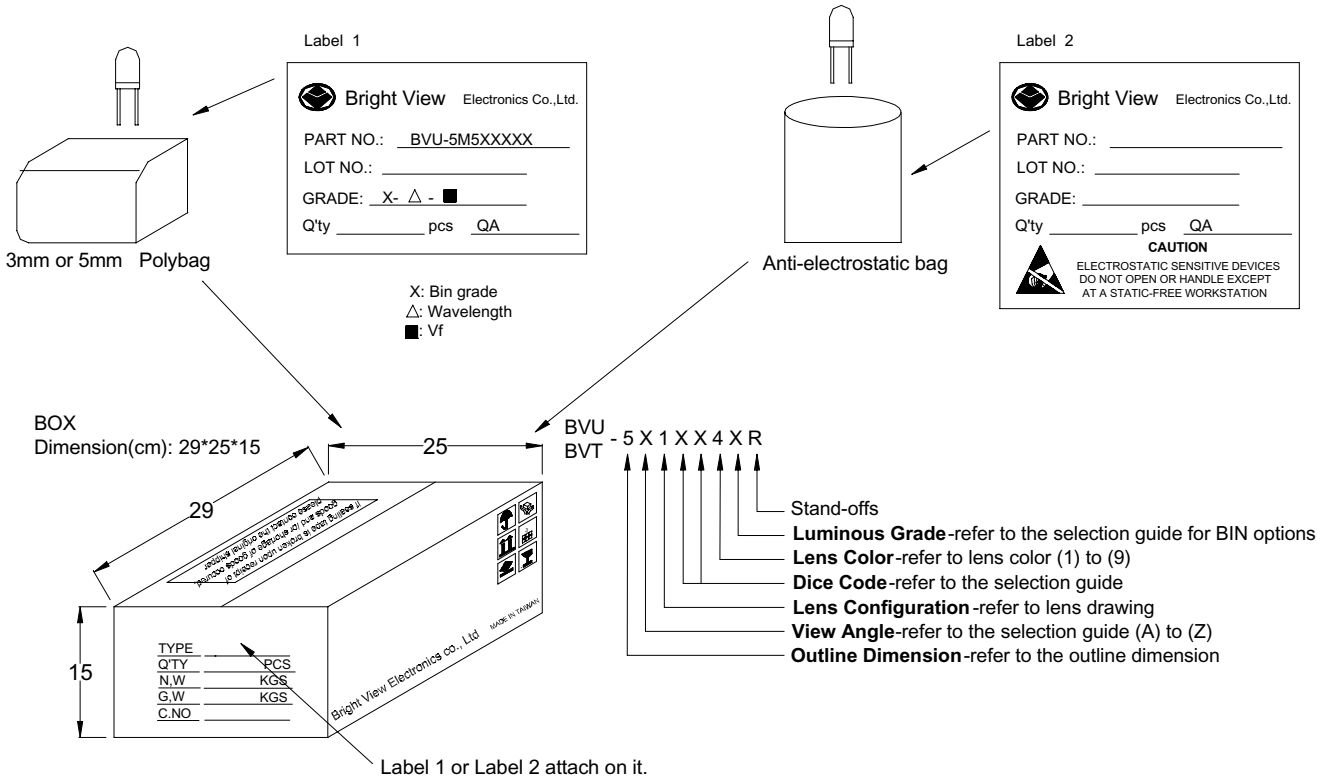
#### (2) Dip Soldering(Wave soldering-Solder Bath)

- (2.1) Leave 3mm of minimum distance from the base of the epoxy.  
Soldering beyond the base of the the tie bar(stand off) is recommended.
- (2.2) When soldering, do not put stress on the LEDs during heating.
- (2.3) Cutting the leadframes at high temperatures may cause LED failure.
- (2.4) Never take next process until the component is cooled down to room temperature after reflow.
- (2.5) After soldering, do not warp the circuit board.
- (2.6) The recommended dip soldering profile is the following:

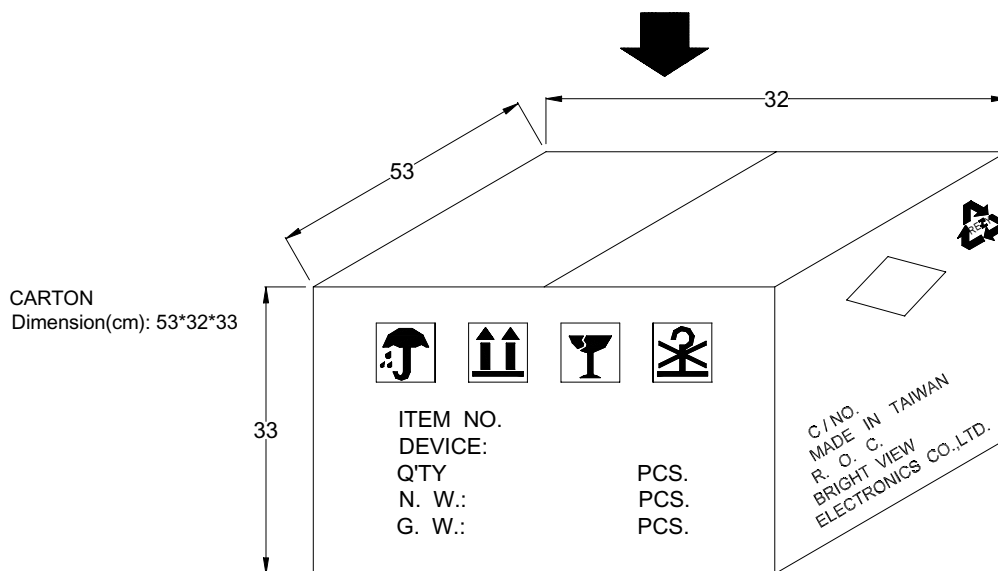




# LAMP PACKING



| Device               | Q'ty / Polybag (pcs) | Polybag / Box A | Fig.    |
|----------------------|----------------------|-----------------|---------|
| 5mm(T-1 3/4)         | 1000pcs              | 14 bags         | Label 1 |
| 3mm(T-1)             | 1000pcs              | 20 bags         | Label 1 |
| Blue / Green / White | 500pcs               | 18 bags         | Label 2 |



4 Boxes / Carton

5mm : 56,000pcs

3mm : 80,000pcs

Blue / Green / White : 36,000pcs