

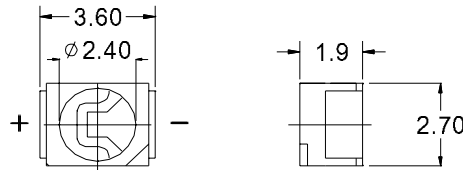


**BVS-301QM4#**

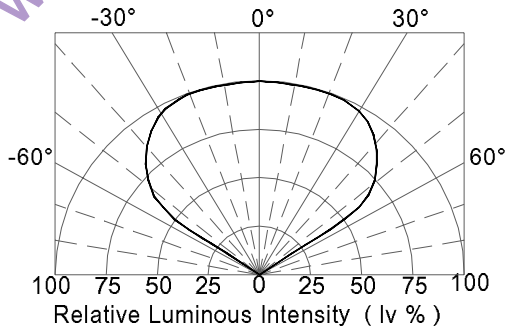
**PACKAGE CONFIGURATION**

**DESCRIPTION**

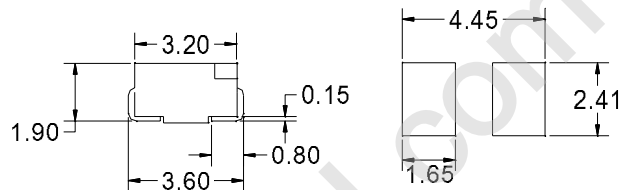
Dice Material : AlGaInP/GaAs Orange Red  
Light Color : Orange Red Color  
Lens Color : Water Transparent



**RADIATION PATTERN**



**INFRARED/VAPOR PHASE  
REFLOW SOLDERING**



Tolerance ± 0.25 mm

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

| PARAMETER  | MAX.         | UNIT  |
|--|--------------|-------|
| Power Dissipation  | 95           | mW    |
| Continuous Forward Current                                   | 35           | mA    |
| Peak Forward Current ( 1/10 Duty Cycle , 0.1ms Pulse Width ) | 80           | mA    |
| Reverse Voltage  | 5            | V     |
| Derating Linear From 50 °C                                   | 0.35         | mA/°C |
| Operating Temperature Range                                  | -40 to + 100 | °C    |
| Storage Temperature Range                                    | -40 to + 100 | °C    |
| Reflow Soldering Condition 230 °C for 10 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    | 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 |      | 621  |      | nm   |
| λ <sub>d</sub>    | Dominant Wavelength      | I <sub>F</sub> = 20 mA |      | 615  |      | nm   |
| 2θ <sub>1/2</sub> | Viewing Angle            | I <sub>F</sub> = 20 mA |      | 110  |      | Deg  |

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

| Device | □ BVS-301QM4C |    |    | □ BVS-301QM4D |    |     | □ BVS-301QM4E |     |     | □ BVS-301QM4F |     |     |
|--------|---------------|----|----|---------------|----|-----|---------------|-----|-----|---------------|-----|-----|
| Bin    | u             | v  | w  | x             | y  | z   | A             | B   | C   | D             | E   | F   |
| Min.   | 22            | 28 | 36 | 47            | 60 | 78  | 100           | 130 | 168 | 218           | 280 | 360 |
| Max.   | 28            | 36 | 47 | 60            | 78 | 100 | 130           | 168 | 218 | 280           | 360 | 465 |

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.



### AlGaInP/GaAs LED

### TYPICAL ELECTRICAL/OPTICAL CHARACTERISTIC CURVES

FIG. 1 Forward Current Vs. Forward Voltage

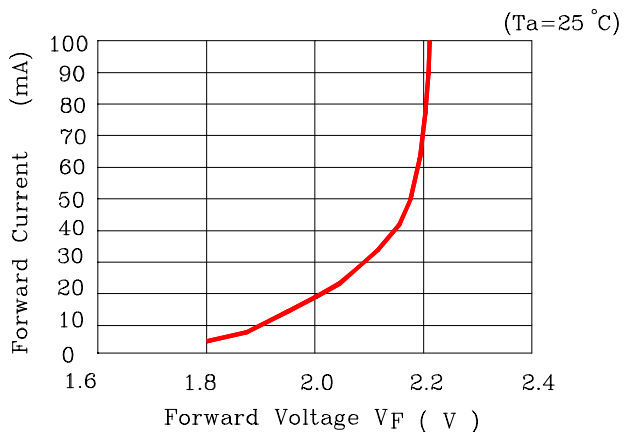


FIG. 2 Relative Intensity Vs. Forward Current

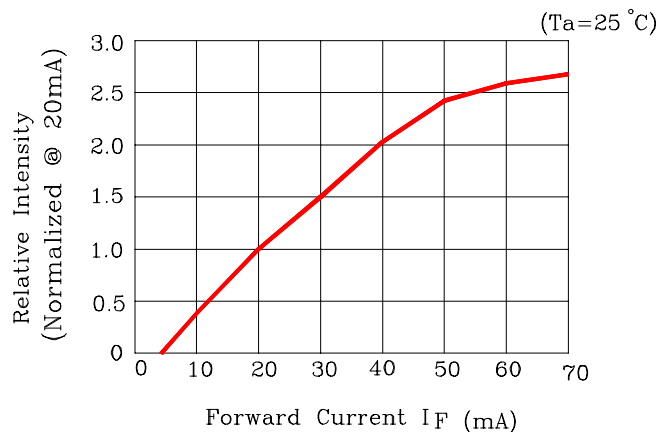


FIG. 3 Forward Voltage VS. Temperature

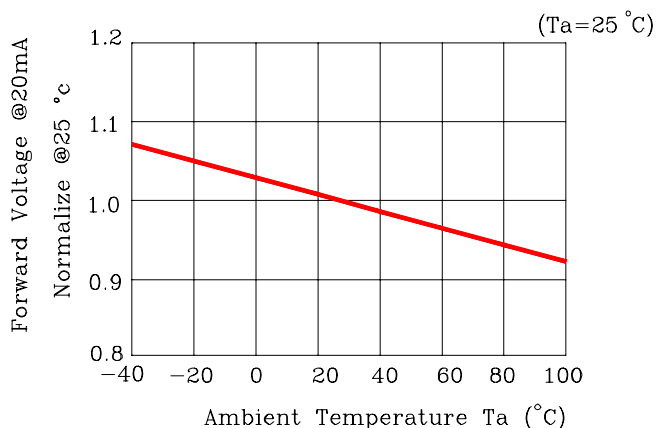


FIG. 4 Relative Intensity vs. Temperature

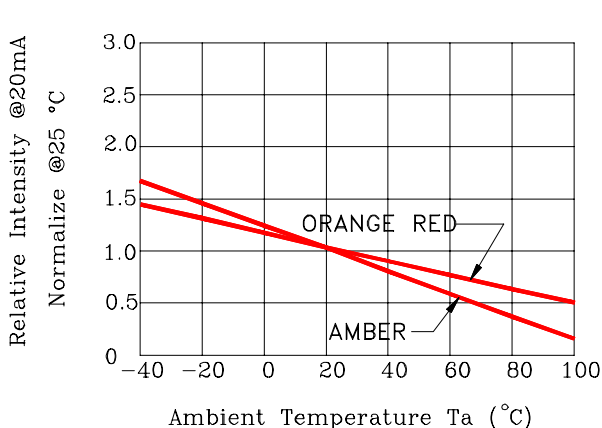


FIG. 5 Relative Intensity vs. Wavelength (λ p)

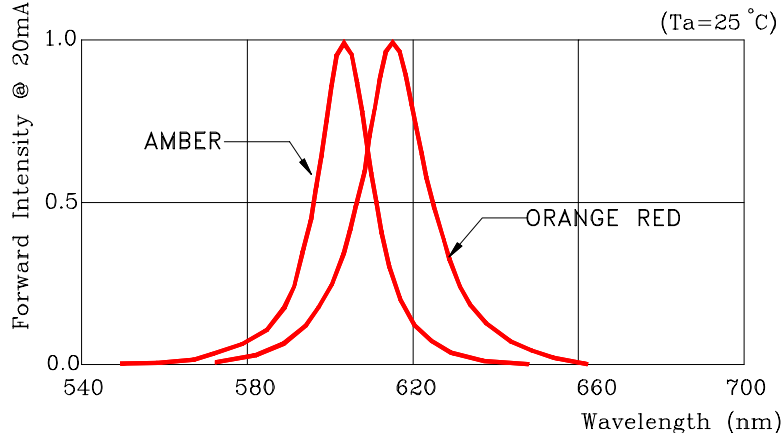
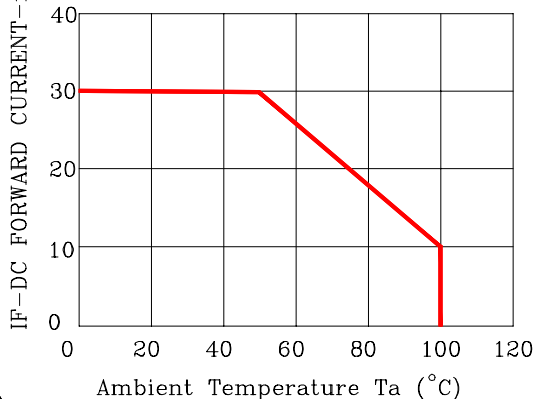


FIG. 6 Maximum Forward Current vs. Ambient Temperature. Derating Based on T<sub>JMAX</sub>=130 °C





**Apply to BVS-3XX ~ BVS-1XX series.**

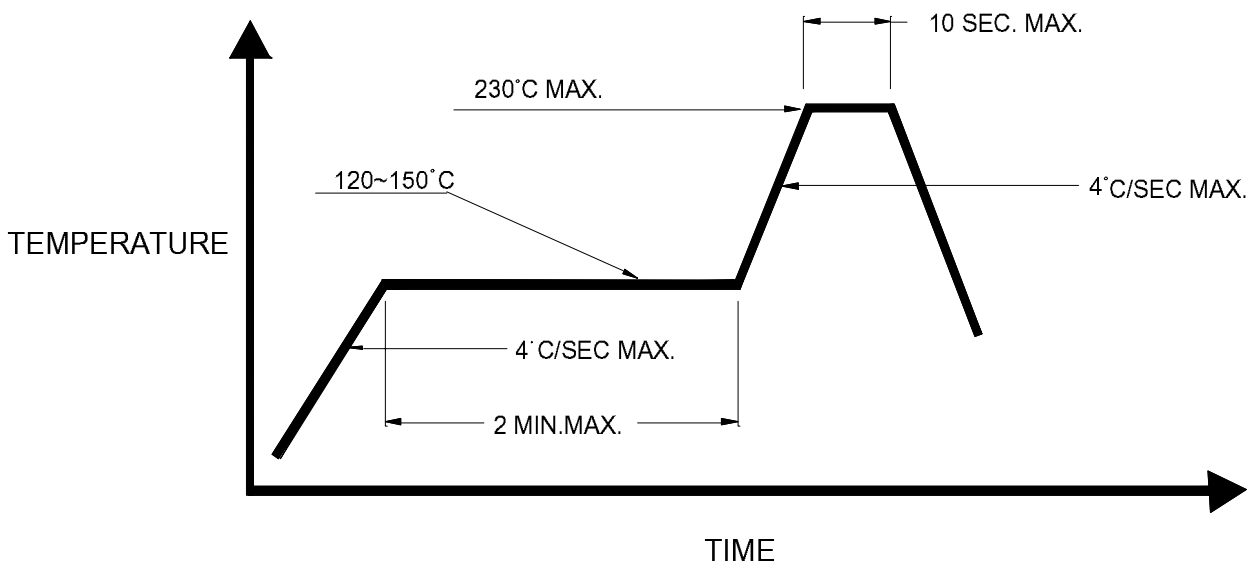
## Description:

(1) Manual soldering (We do not recommend this method strongly.)

- (1.1) To prevent cracking, please bake before manual soldering.
- (1.2) Temperature at tip of iron: 300°C Max.(25W)
- (1.3) It's banned to load any stress on the resin during soldering.
- (1.4) Soldering time: 3 sec. Max.(one time only)

(2) Reflow Soldering

- (2.1) When soldering, do not put stress on the LEDs during heating.
- (2.2) Never take next process until the component is cooled down to room temperature after reflow.
- (2.3) After soldering, do not warp the circuit board.
- (2.4) The recommended reflow soldering profile (measuring on the surface of the LED resin) is following:





**Apply to BVS-3XX · 2XX series.**

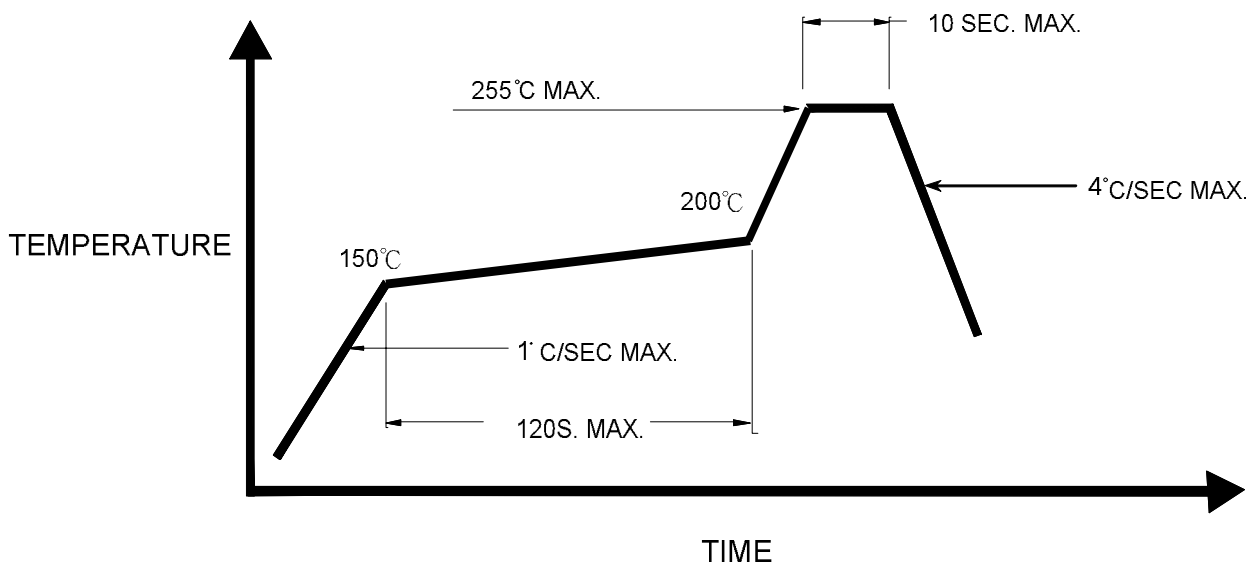
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(2) Reflow Soldering

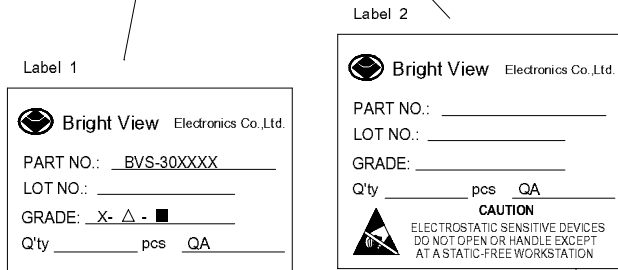
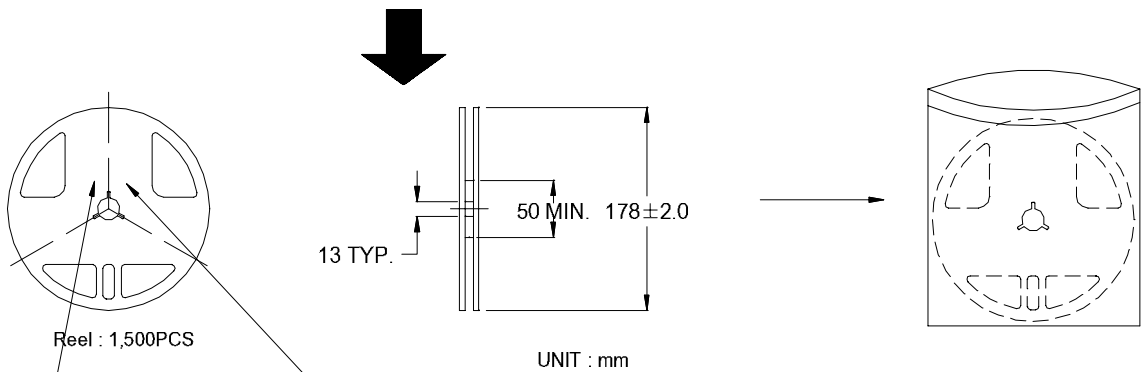
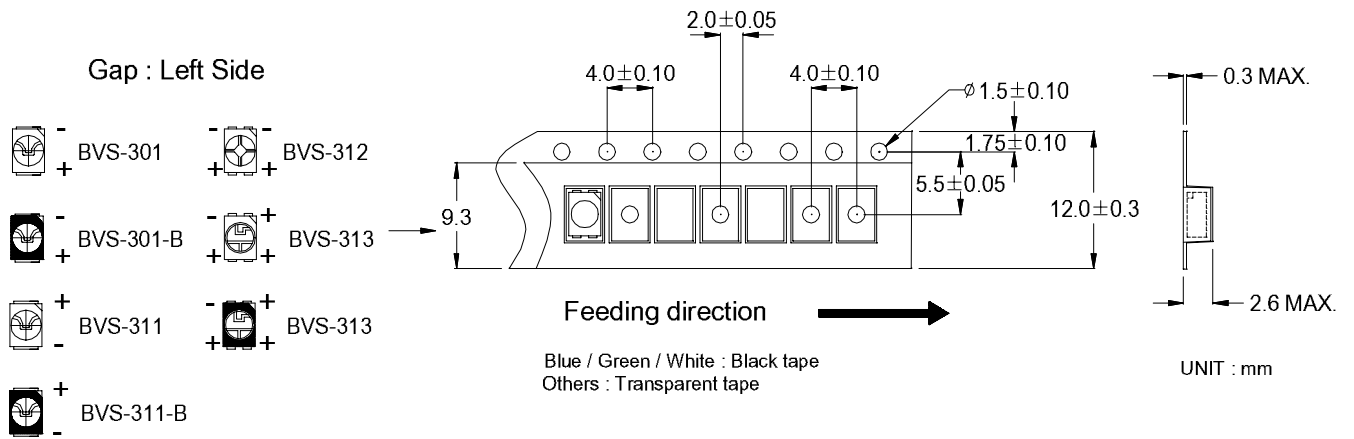
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The reflow temperature 245°C~255°C is recommended and the soldering temperature should be not higher than 255°C

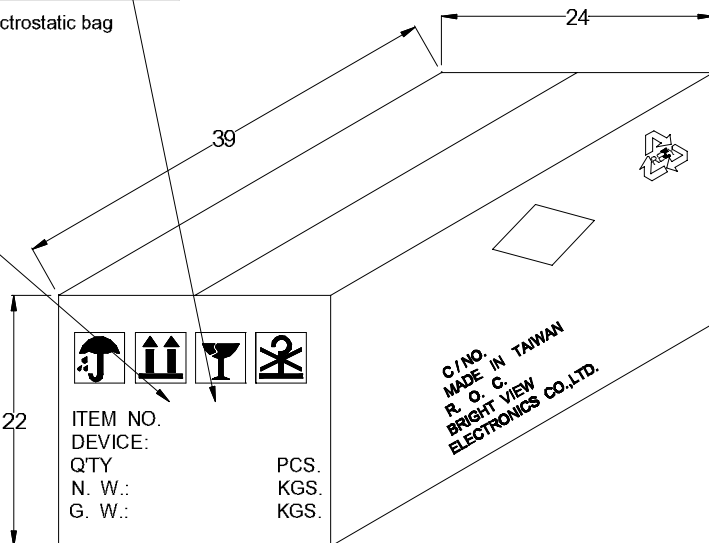


# TOP LEDS PACKING (A)



X: Bin grade  
△: Wavelength  
■: Vf

CARTON  
Dimension(cm): 39\*24\*22



Carton : 20 Reels  
Total : 30,000PCS