

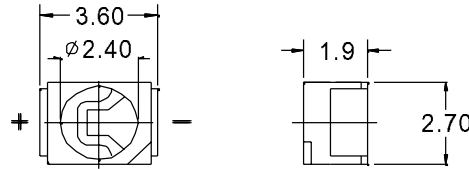


**BVS-301RW4C**

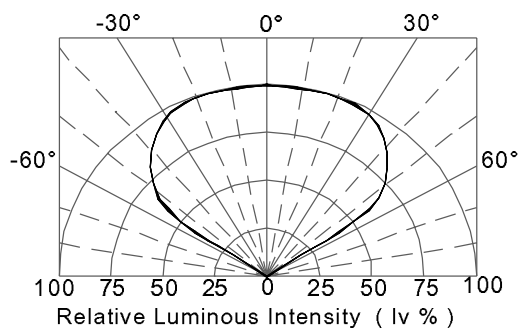
**PACKAGE CONFIGURATION**

**DESCRIPTION**

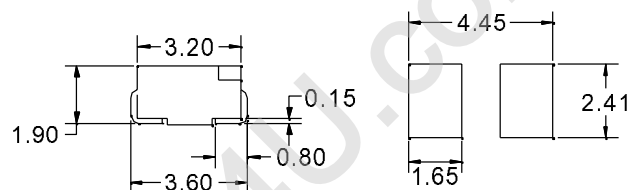
Dice Material : AlGaInP/GaAs Red  
Light Color : Red Color  
Lens Color : Water Transparent



**RADIATION PATTERN**



**INFRARED/VAPOR PHASE REFLOW SOLDERING**



Tolerance  $\pm 0.25$  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		2.1	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		645		nm
λ <sub>d</sub>	Dominant Wavelength	I <sub>F</sub> = 20 mA		632		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**

Bin	w	x	y	z	A	B	C	D
Min.	29	35	42	50	60	70	84	100
Max.	35	42	50	60	70	84	100	118

Tolerance  $\pm 15\%$  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

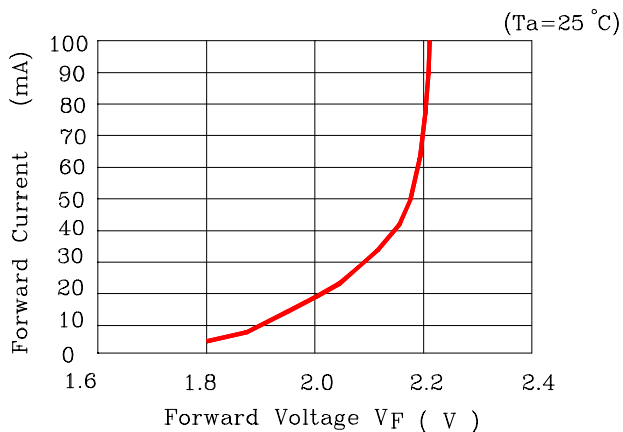


FIG. 2 Relative Intensity Vs. Forward Current

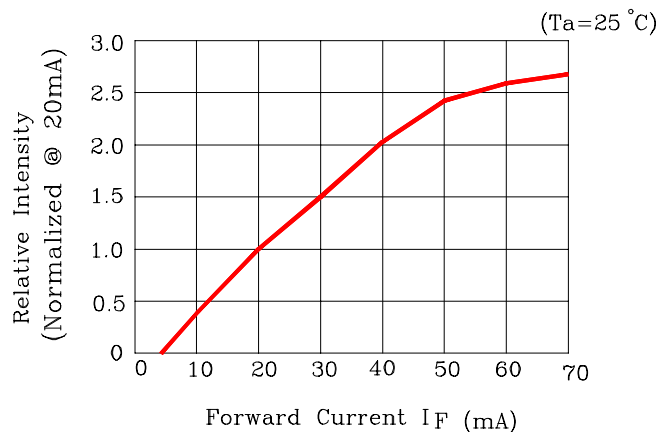


FIG. 3 Forward Voltage VS. Temperature

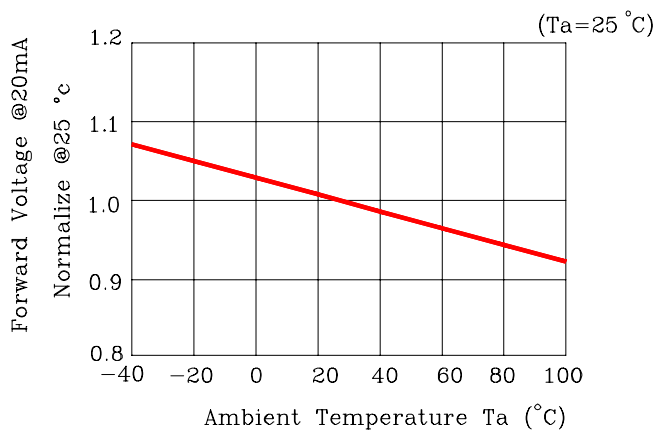


FIG. 4 Relative Intensity vs. Temperature

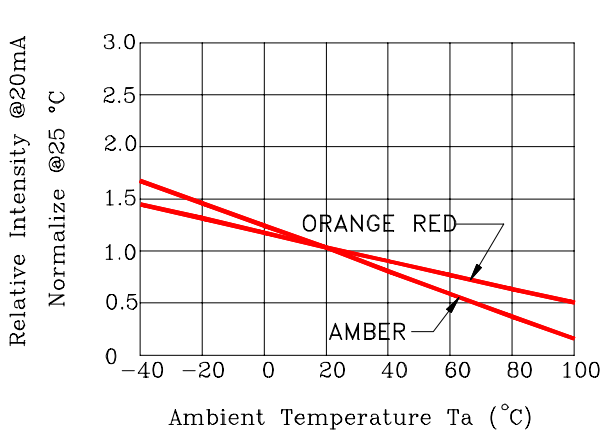


FIG. 5 Relative Intensity vs. Wavelength ( $\lambda_p$ )

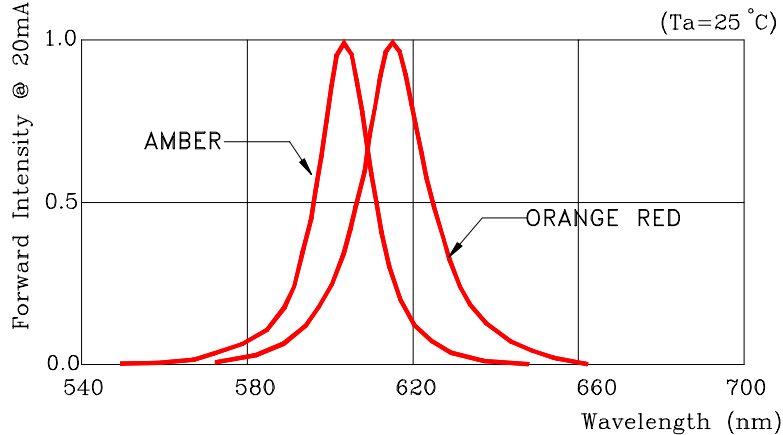
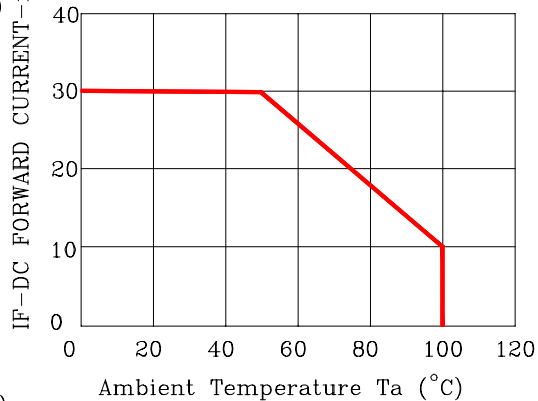


FIG. 6 Maximum Forward Current vs. Ambient Temperature. Derating Based on  $T_{MAX}=130^{\circ}C$





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

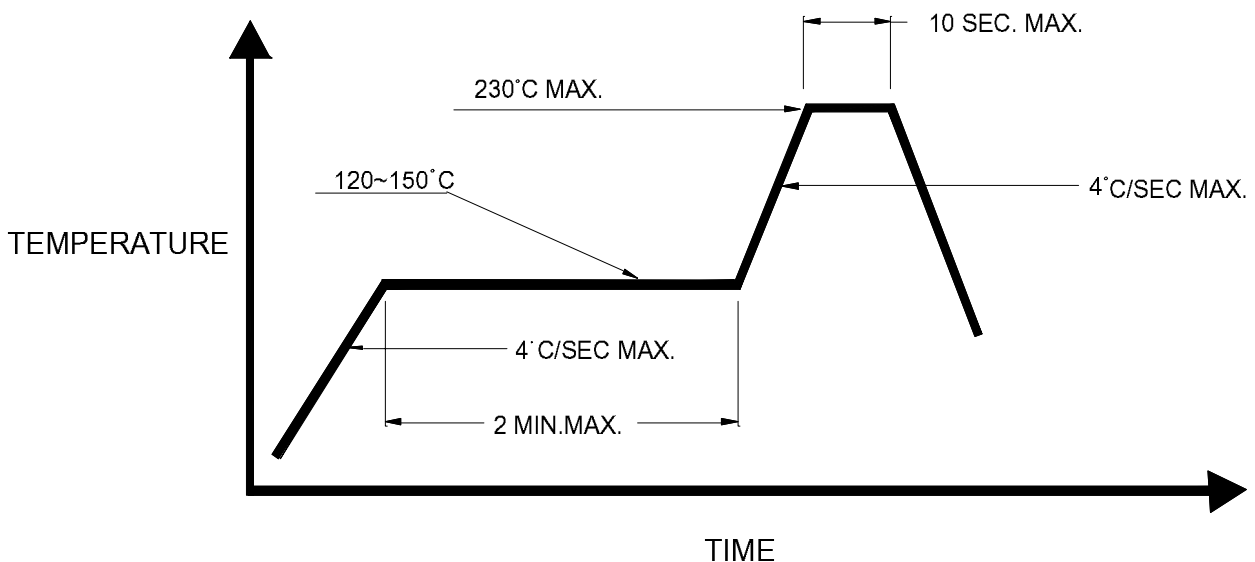
## Description:

(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.

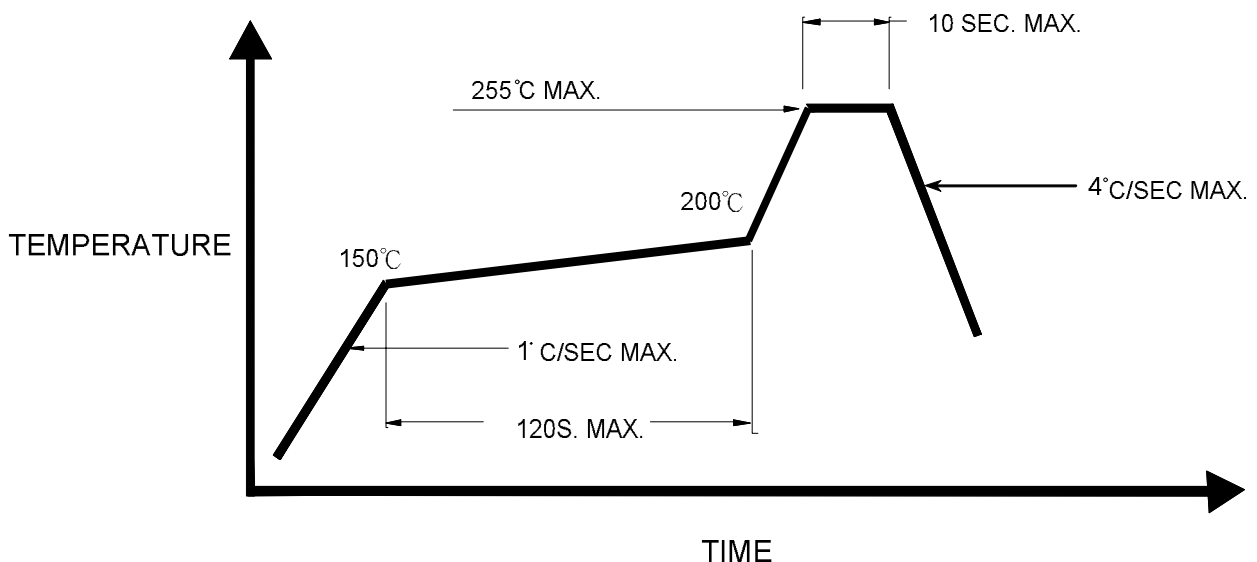
## Description:

(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

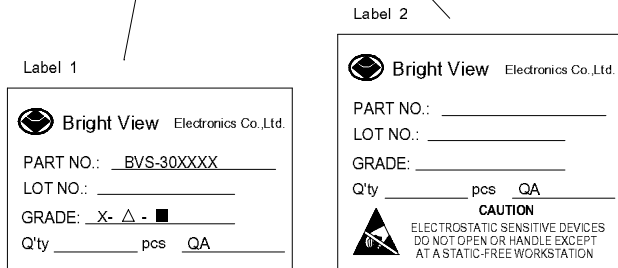
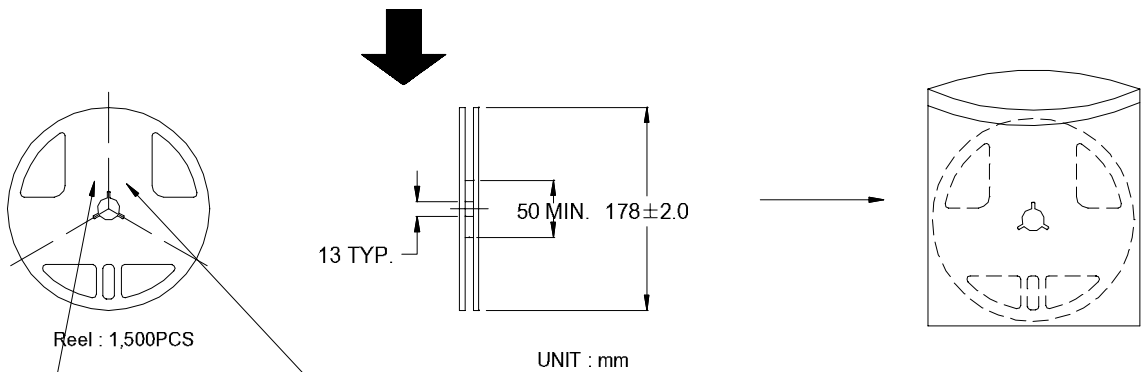
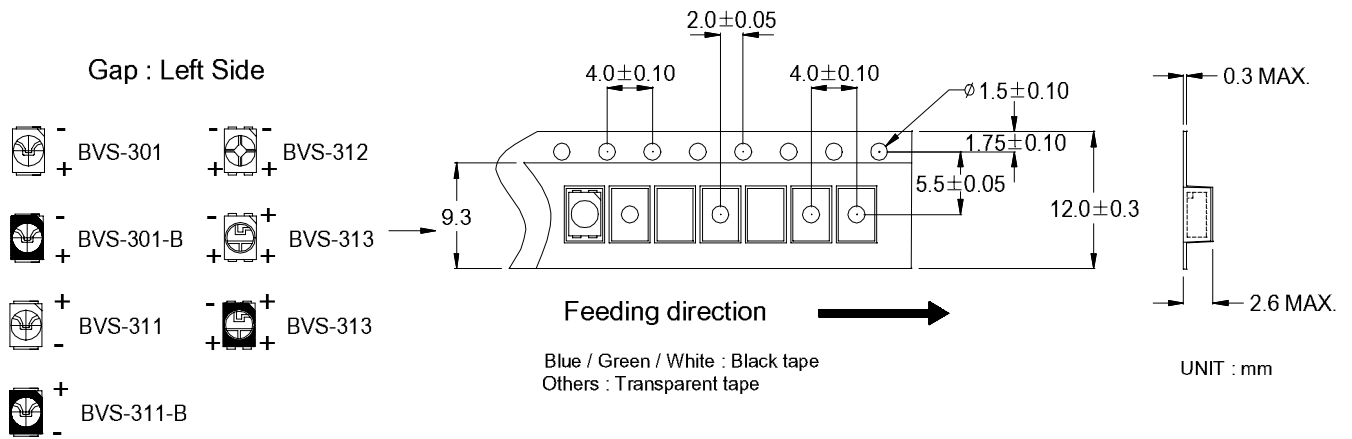
- (2.1) When soldering, do not put stress on the LEDs during heating.
- (2.2) Never take next process until the component is cooled down to room temperature after reflow.
- (2.3) After soldering, do not warp the circuit board.
- (2.4) The recommended reflow soldering profile (measuring on the surface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



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

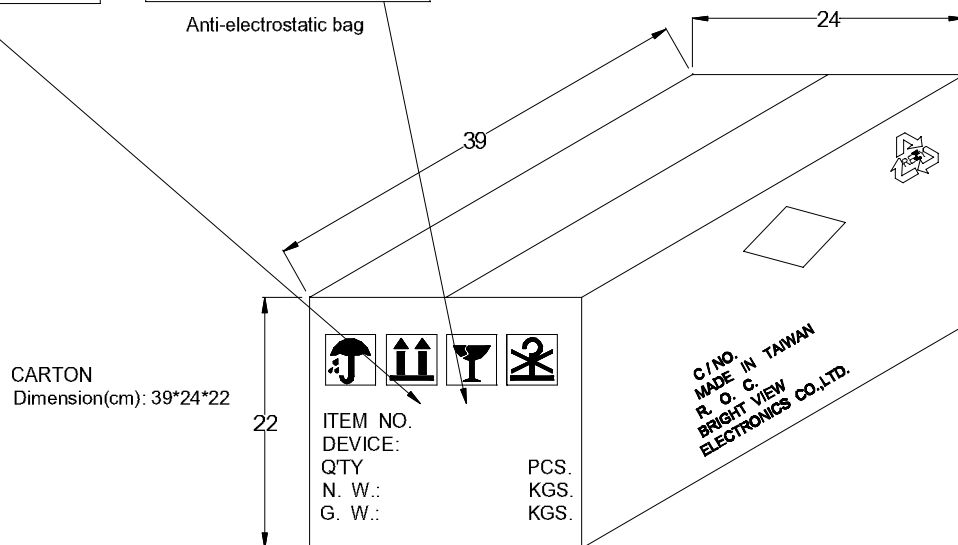


# TOP LEDS PACKING (A)



Normal

X: Bin grade  
△: Wavelength  
■: Vf



Carton : 20 Reels  
Total : 30,000PCS