

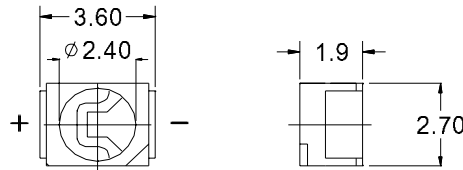


BVS-301QM4#

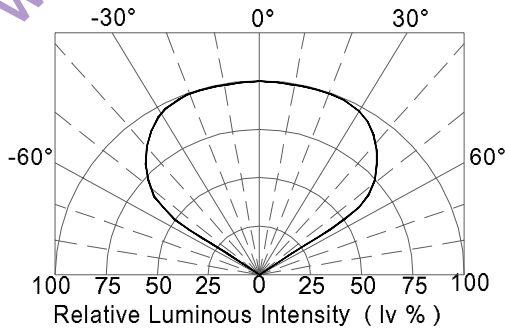
PACKAGE CONFIGURATION

DESCRIPTION

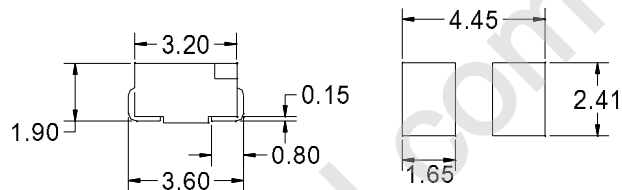
Dice Material : AlGaInP/GaAs Orange Red
Light Color : Orange Red Color
Lens Color : Water Transparent



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 _F	Forward Voltage	I _F = 20 mA		2	2.6	V
I _R	Reverse Current	V _R = 5V			100	μ A
λ_p	Peak Emission Wavelength	I _F = 20 mA		621		nm
λ_d	Dominant Wavelength	I _F = 20 mA		615		nm
2 $\theta_{1/2}$	Viewing Angle	I _F = 20 mA		110		Deg

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

Device	<input type="checkbox"/> BVS-301QM4C			<input type="checkbox"/> BVS-301QM4D			<input type="checkbox"/> BVS-301QM4E			<input type="checkbox"/> 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 $\pm 15\%$ mcd

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

*Dominant Wavelength, λ_d is according to CIE Chromaticity Diagram base on color of lamps.

* $\theta_{1/2}$ 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

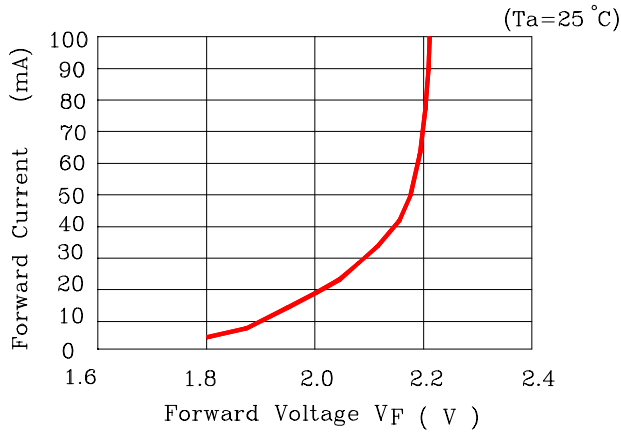


FIG. 2 Relative Intensity Vs. Forward Current

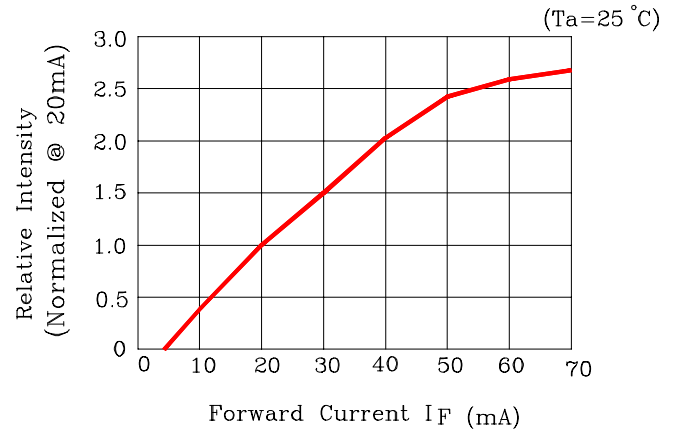


FIG. 3 Forward Voltage VS. Temperature

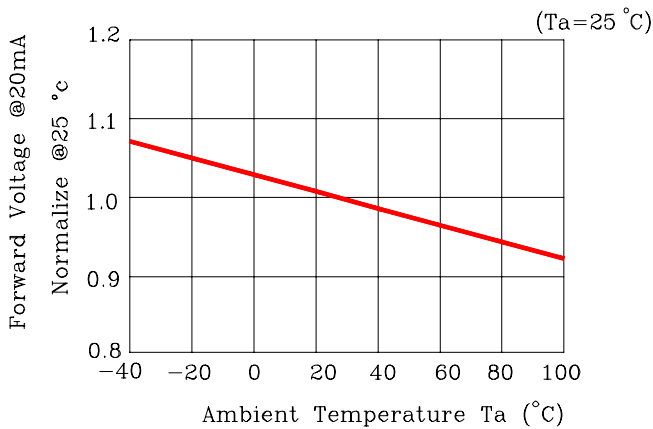


FIG. 4 Relative Intensity vs. Temperature

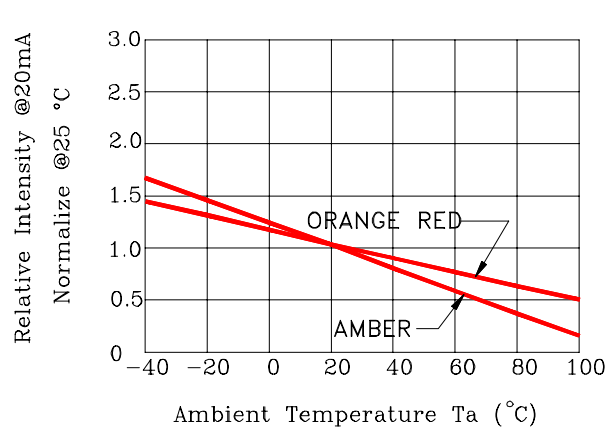


FIG. 5 Relative Intensity vs. Wavelength (λ p)

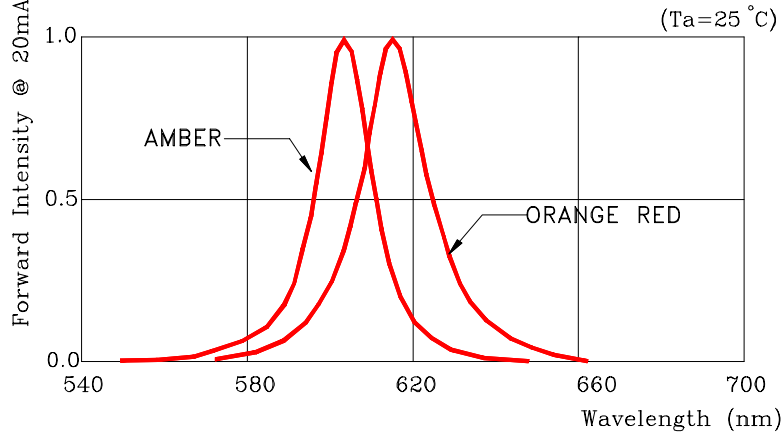
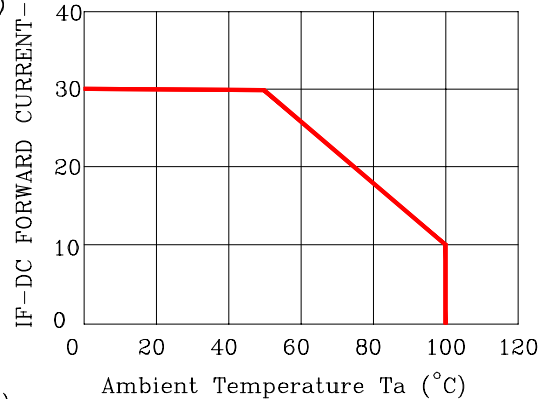


FIG. 6 Maximum Forward Current vs. Ambient Temperature. Derating Based on T_{JMAX}=130 °C





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

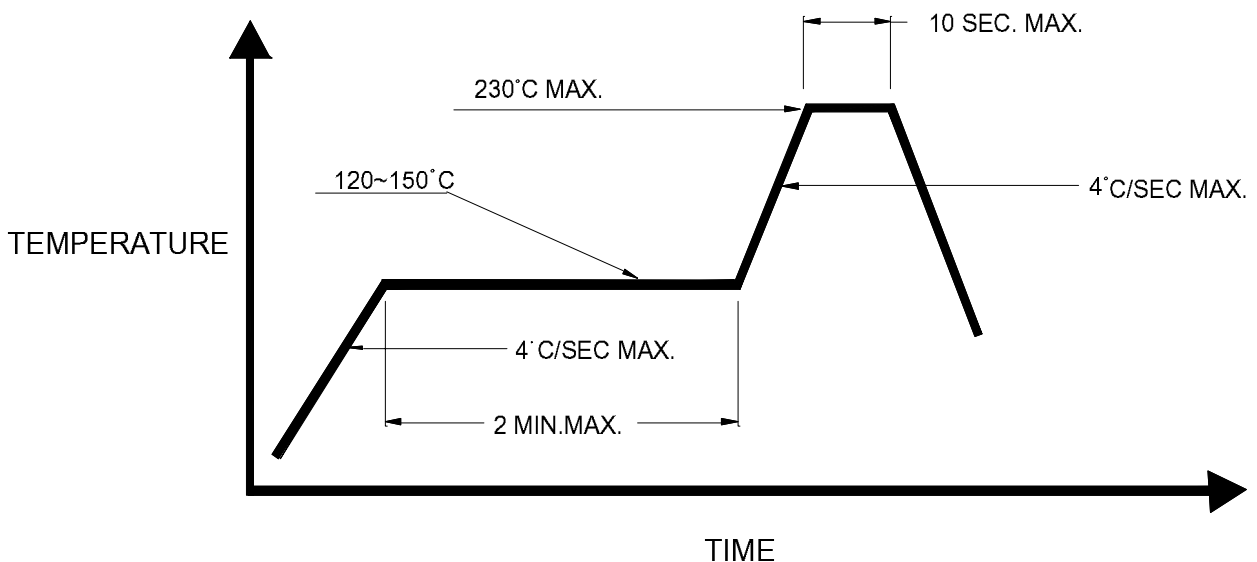
Description:

(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.

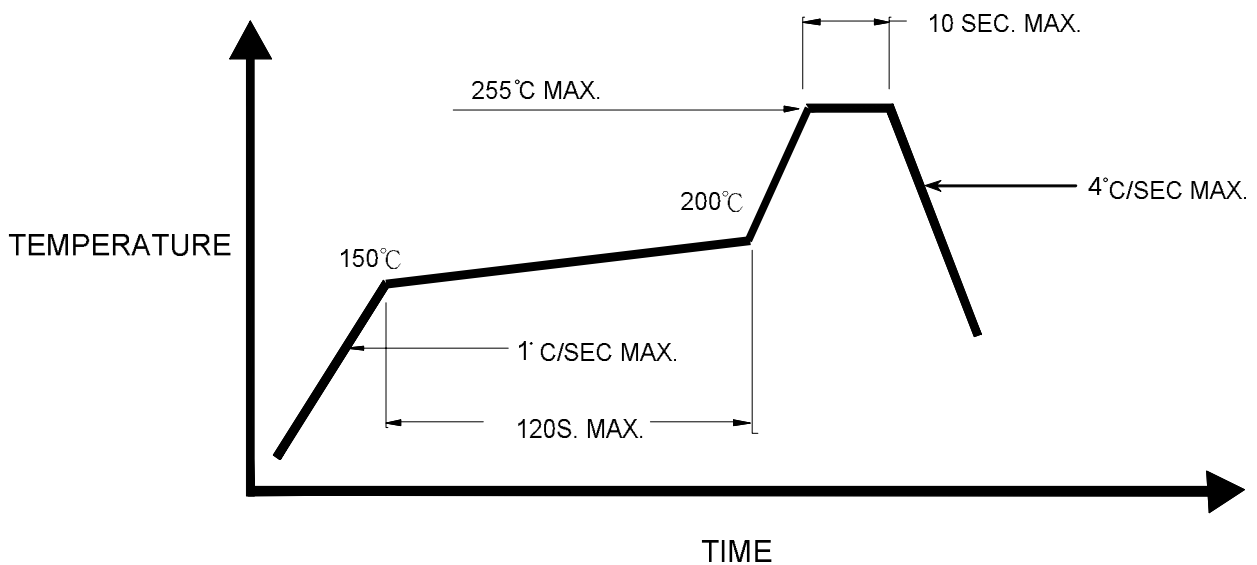
Description:

(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

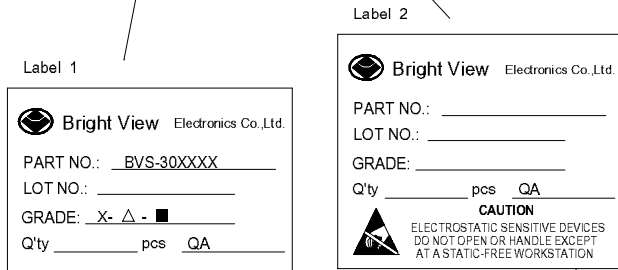
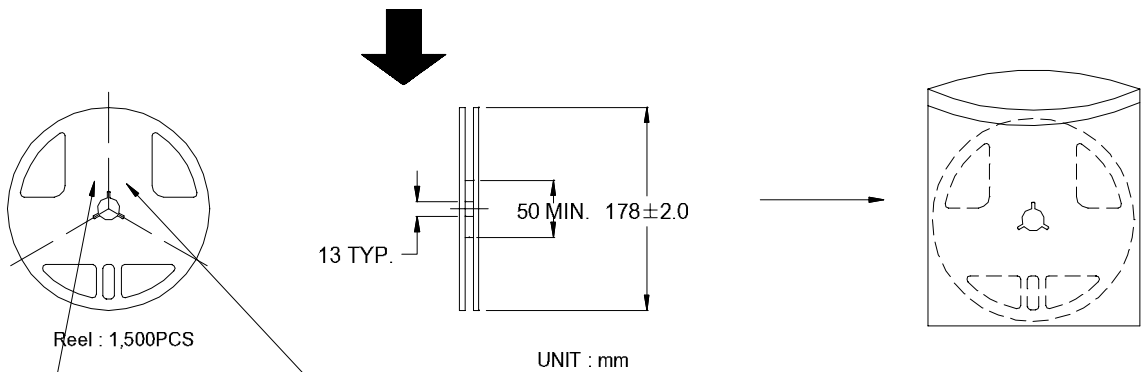
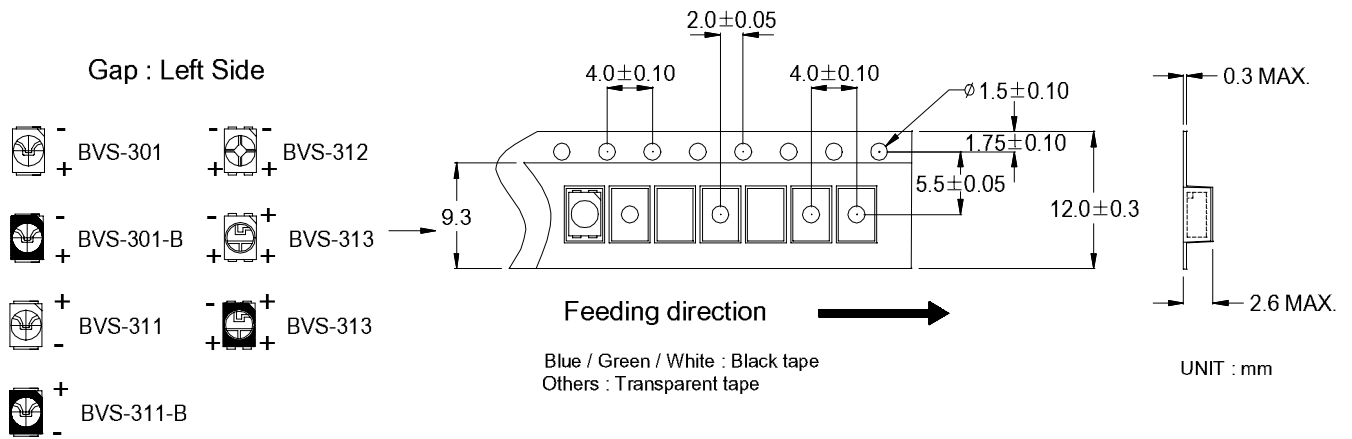
- (2.1) When soldering, do not put stress on the LEDs during heating.
- (2.2) Never take next process until the component is cooled down to room temperature after reflow.
- (2.3) After soldering, do not warp the circuit board.
- (2.4) The recommended reflow soldering profile (measuring on the surface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

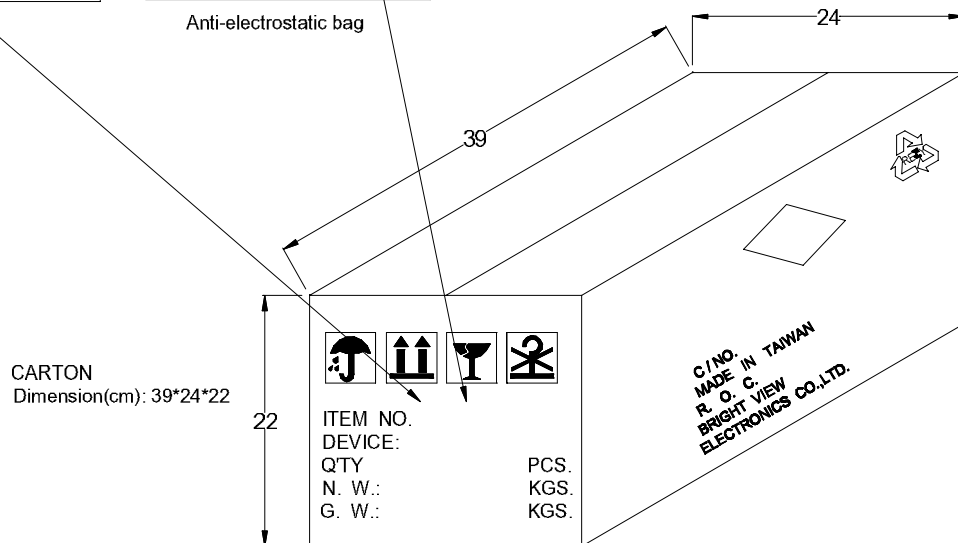


TOP LEDS PACKING (A)



Normal

X: Bin grade
Δ: Wavelength
■: Vf



Carton : 20 Reels
Total : 30,000PCS