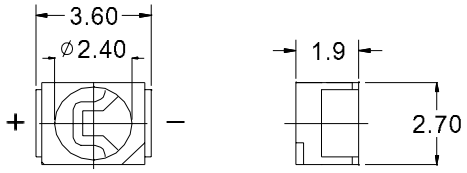
BRIGHT VIEW
ELECTRONICS CO.,LTD

SUPER BRIGHTNESS SMD LED

BVS-301QA4

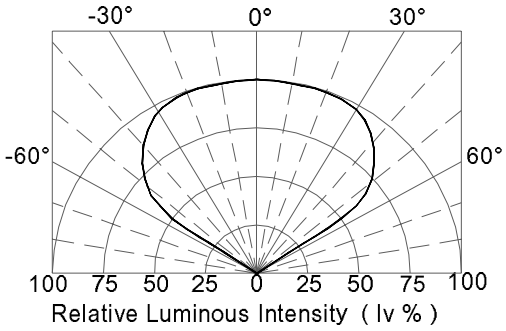
PACKAGE CONFIGURATION



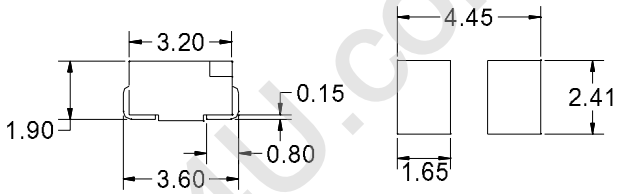
DESCRIPTION

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

RADIATION PATTERN



INFRARED/VAPOR PHASE REFLOW SOLDERING



Tolerance ± 0.25 ㎜

ABSOLUTE MAXIMUM RATINGS AT Ta = 25 ℃

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 ℃	0.35	mA/℃
Operating Temperature Range	−40 to + 100	℃
Storage Temperature Range	−40 to + 100	℃
Reflow Soldering Condition 230 ℃ for 10 seconds		

ELECTRICAL / OPTICAL CHARACTERISTICS AT Ta = 25 ℃

SYMBOL	PARAMETER	TEST COND.	MIN.	TYP.	MAX.	UNIT
V_F	Forward Voltage	I_F = 20 mA		2.1	2.7	V
I_R	Reverse Current	V_R = 5V			100	μA
λp	Peak Emission Wavelength	I_F = 20 mA		632		n m
λd	Dominant Wavelength	I_F = 20 mA		624		n m
2θ1/2	Viewing Angle	I_F = 20 mA		110		Deg

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

Bin	C	D	E	F	G	H
Min.	168	218	280	360	465	600
Max.	218	280	360	465	600	780

Tolerance ± 15%mcd

*Bright View reserves the rights to alter specifications and remove availability of products at any time without notice.
*Dominant Wavelength, λd is according to CIE Chromaticity Diagram base on color of lamps.
*θ1/2 is the off-axis angle where the luminous intensity is one half the on-axis intensity.

2004/10/1 – A

AlGaInP/GaAs LED

TYPICAL ELECTRICAL/OPTICAL CHARACTERISTIC CURVES

FIG. 1 Forward Current Vs. Forward Voltage

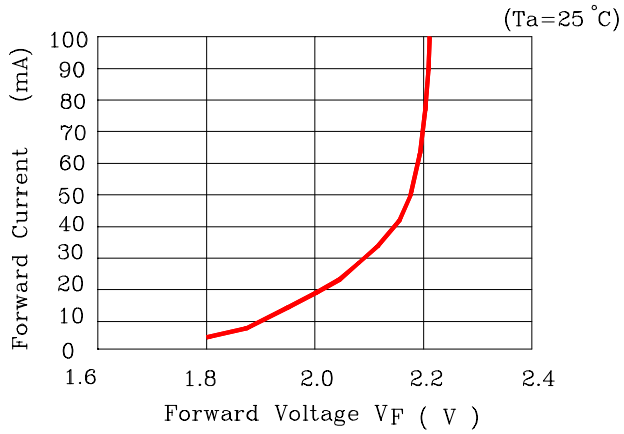


FIG. 2 Relative Intensity Vs. Forward Current

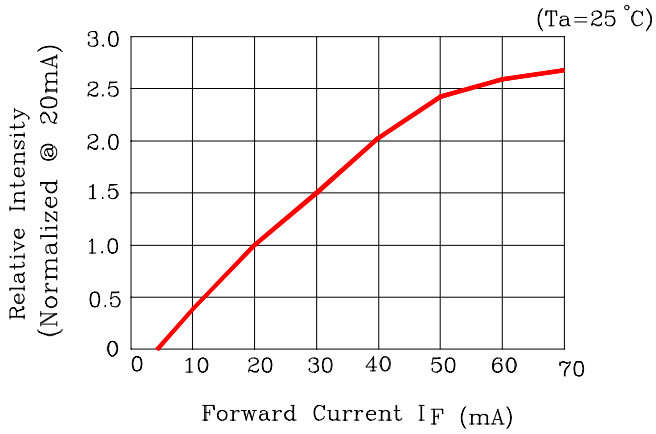


FIG. 3 Forward Voltage VS. Temperature

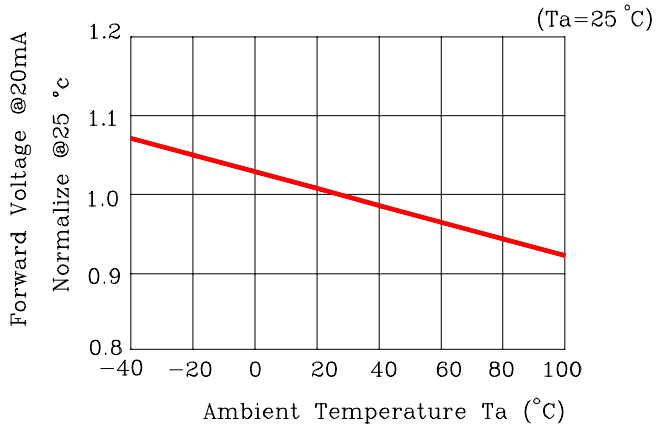


FIG. 4 Relative Intensity vs. Temperature

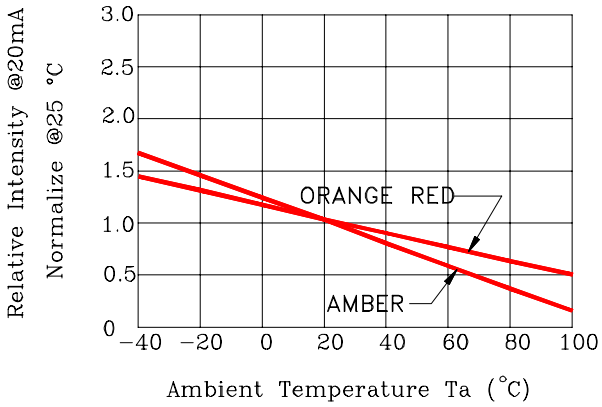


FIG. 5 Relative Intensity vs. Wavelength (λ p)

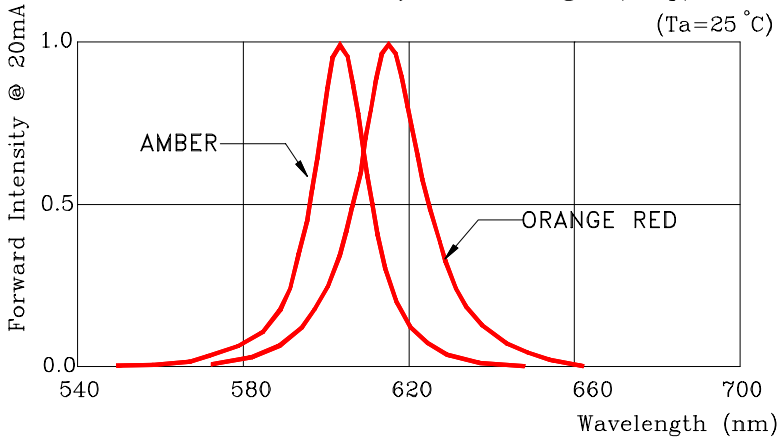
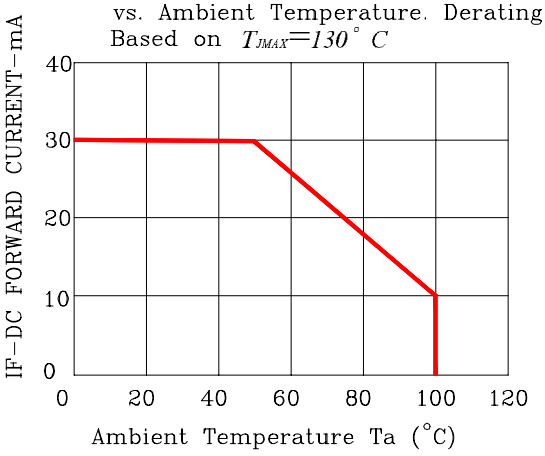


FIG. 6 Maximum Forward Current vs. Ambient Temperature. Derating Based on $T_{JMAX}=130^{\circ}C$



SMD APPLICATION (SOLDERING)

Apply to BVS-3XX、BVS-1XX series.

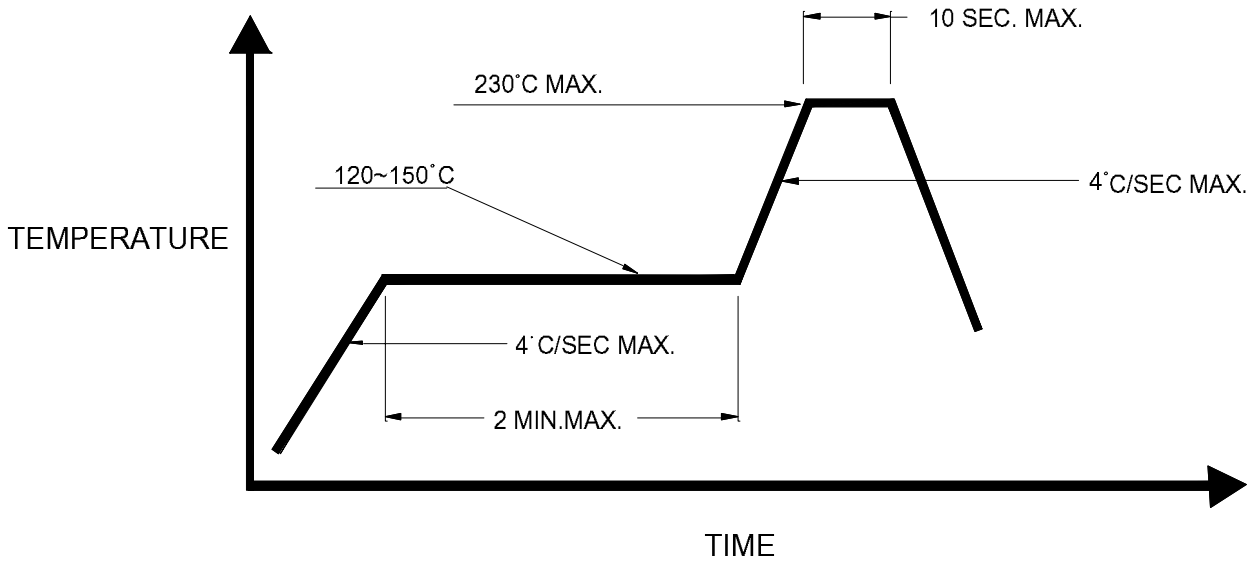
Description:

(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℃ 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:



SMD APPLICATION (PB FREE SOLDERING)

Apply to BVS-3XX、2XX series.

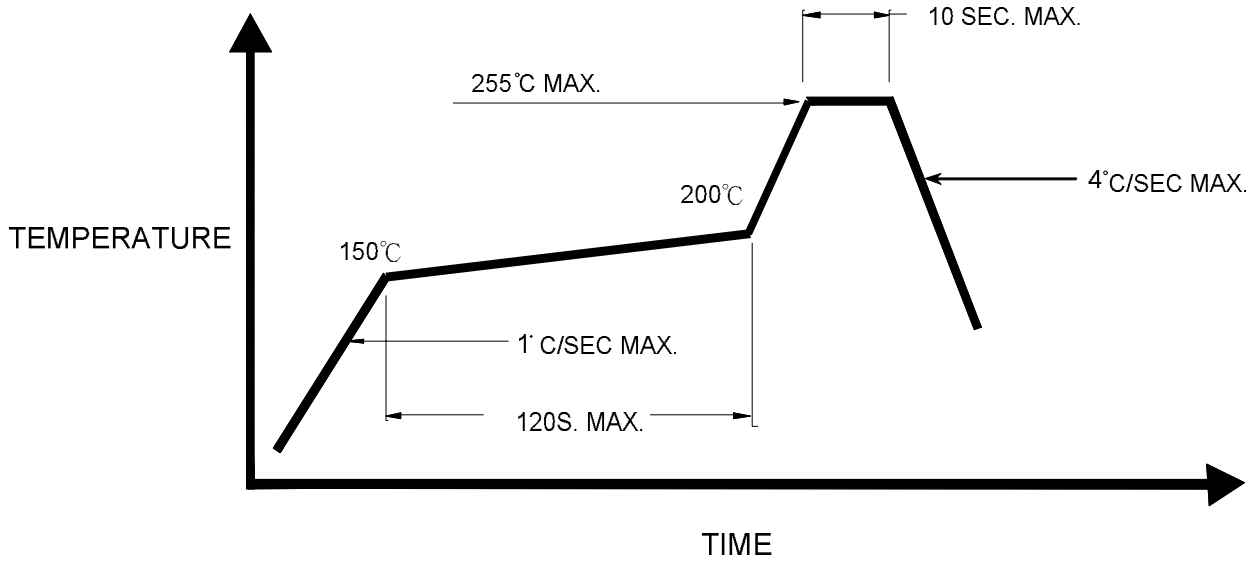
Description:

(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℃ 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℃~255℃ is recommended and the soldering temperature should be not higher than 255℃

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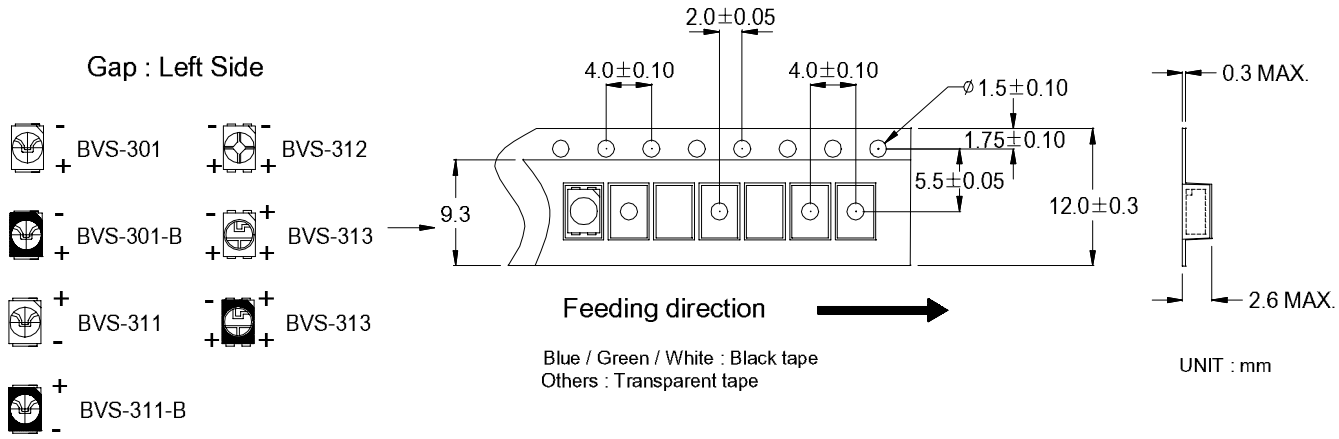
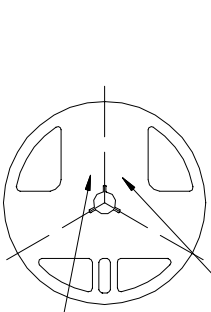
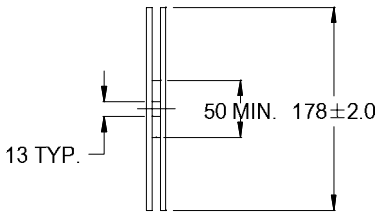
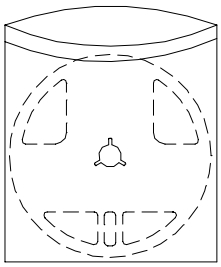
TOP LEDS PACKING (A)




Reel : 1,500PCS



UNIT : mm



Label 1

Bright View Electronics Co.,Ltd.
PART NO.: BVS-30XXXX
LOT NO.:
GRADE: X- △ - ■
Q'ty _____ pcs QA

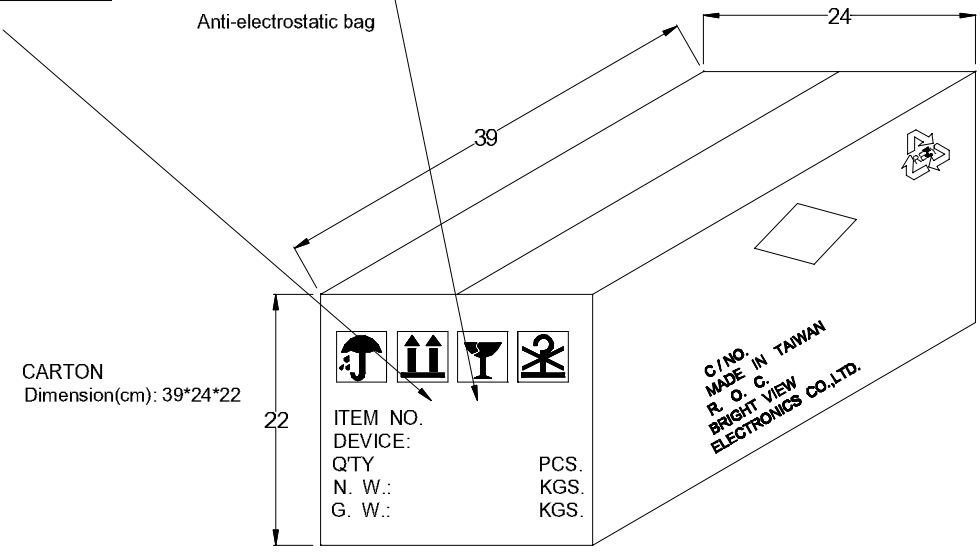
Normal

X: Bin grade
△: Wavelength
■: Vf

Label 2

Bright View Electronics Co.,Ltd.
PART NO.: _____
LOT NO.: _____
GRADE: _____
Q'ty _____ pcs QA
CAUTION
ELECTROSTATIC SENSITIVE DEVICES
DO NOT OPEN OR HANDLE EXCEPT
AT A STATIC-FREE WORKSTATION

Anti-electrostatic bag



CARTON
Dimension(cm): 39*24*22

Carton : 20 Reels
Total : 30,000PCS

2003 / 10 / 24 - B