

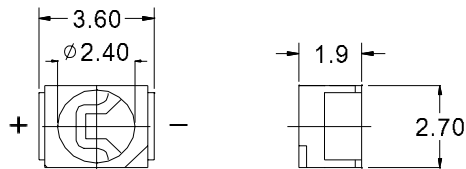


BVS-301QH4

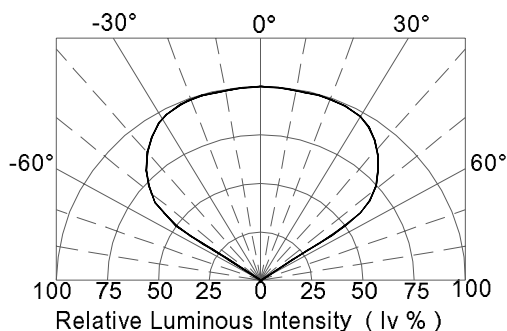
PACKAGE CONFIGURATION

DESCRIPTION

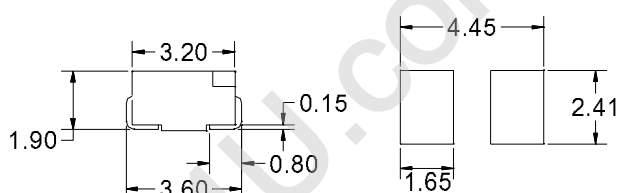
Dice Material : AlGaInP/GaAs Orange Red
Light Color : Orange Red Color
Lens Color : Water Transparent



RADIATION PATTERN



INFRARED/VAPOR PHASE REFLOW SOLDERING



Tolerance ± 0.25 mm

ABSOLUTE MAXIMUM RATINGS AT $T_a = 25^\circ\text{C}$

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/ $^\circ\text{C}$
Operating Temperature Range	-40 to $+100$	$^\circ\text{C}$
Storage Temperature Range	-40 to $+100$	$^\circ\text{C}$
Reflow Soldering Condition 230°C for 10 seconds		

ELECTRICAL / OPTICAL CHARACTERISTICS AT $T_a = 25^\circ\text{C}$

SYMBOL	PARAMETER	TEST COND.	MIN.	TYP.	MAX.	UNIT
V_F	Forward Voltage	$I_F = 20\text{ mA}$		2	2.6	V
I_R	Reverse Current	$V_R = 5\text{ V}$			100	μA
λ_p	Peak Emission Wavelength	$I_F = 20\text{ mA}$		632		nm
λ_d	Dominant Wavelength	$I_F = 20\text{ mA}$		624		nm
$2\theta_{1/2}$	Viewing Angle	$I_F = 20\text{ mA}$		110		Deg

BIN GRADE LIMITS ($I_F = 20\text{ mA}$) LUMINOUS INTENSITY / mcd

Bin	z	A	B	C	D	E
Min.	78	100	130	168	218	280
Max.	100	130	168	218	280	360

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

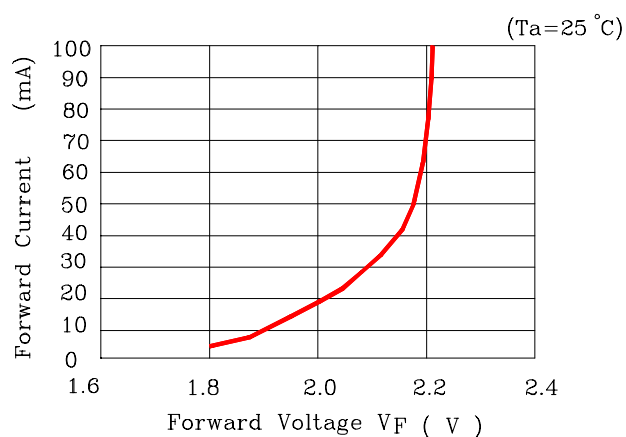


FIG. 2 Relative Intensity Vs. Forward Current

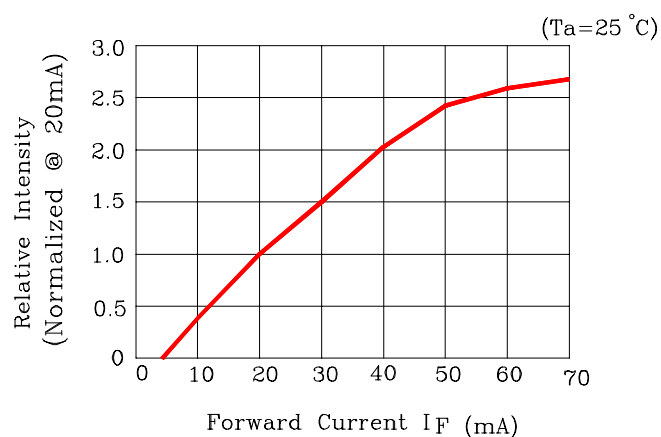


FIG. 3 Forward Voltage VS. Temperature

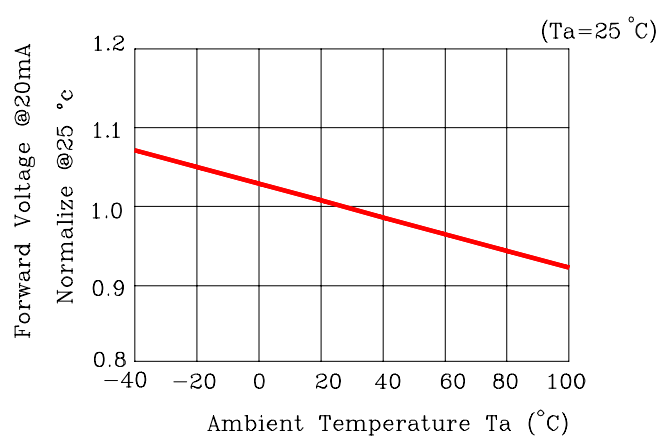


FIG. 4 Relative Intensity vs. Temperature

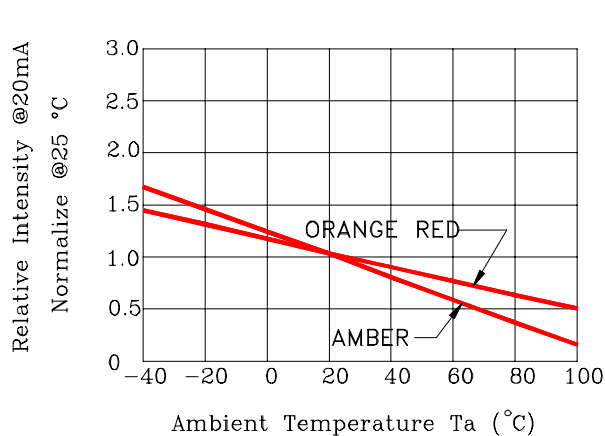


FIG. 5 Relative Intensity vs. Wavelength (λ_p)

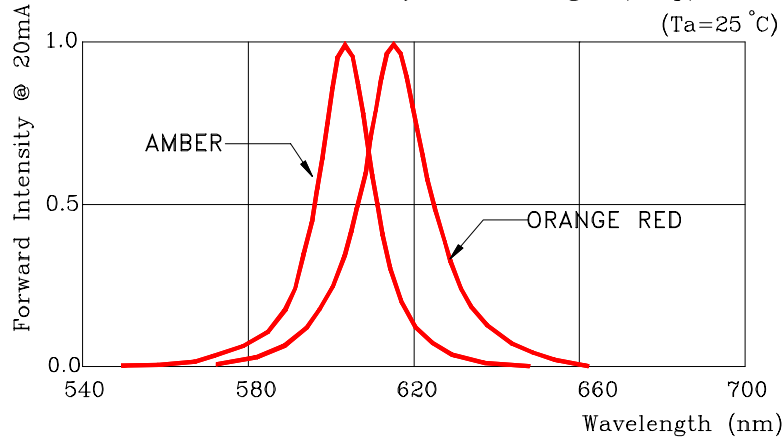
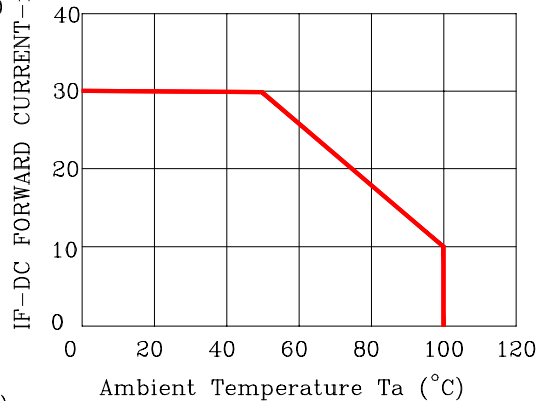


FIG. 6 Maximum Forward Current vs. Ambient Temperature. Derating Based on $T_{JMAX} = 130^\circ\text{C}$





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

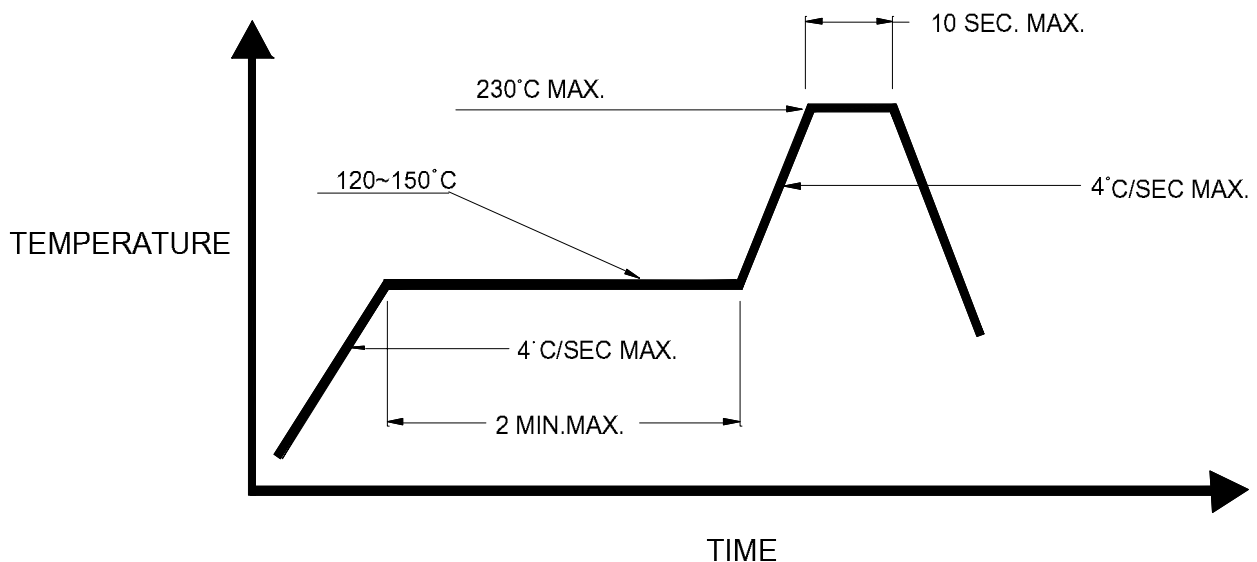
Description:

(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.

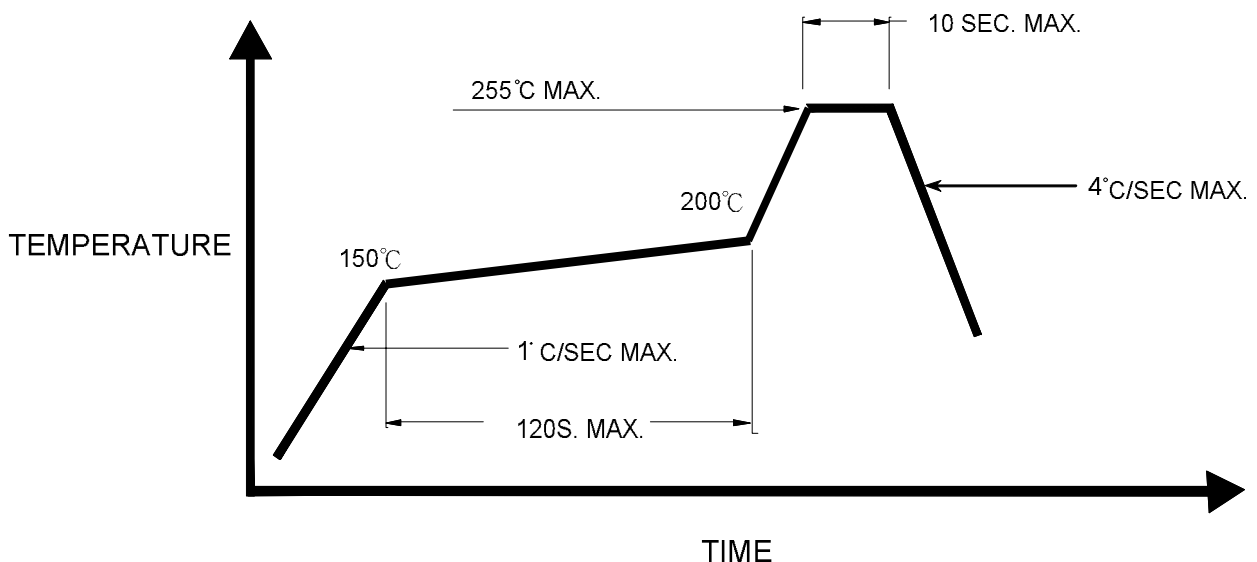
Description:

(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

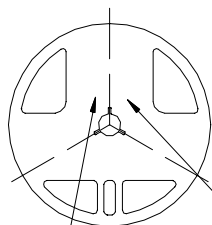
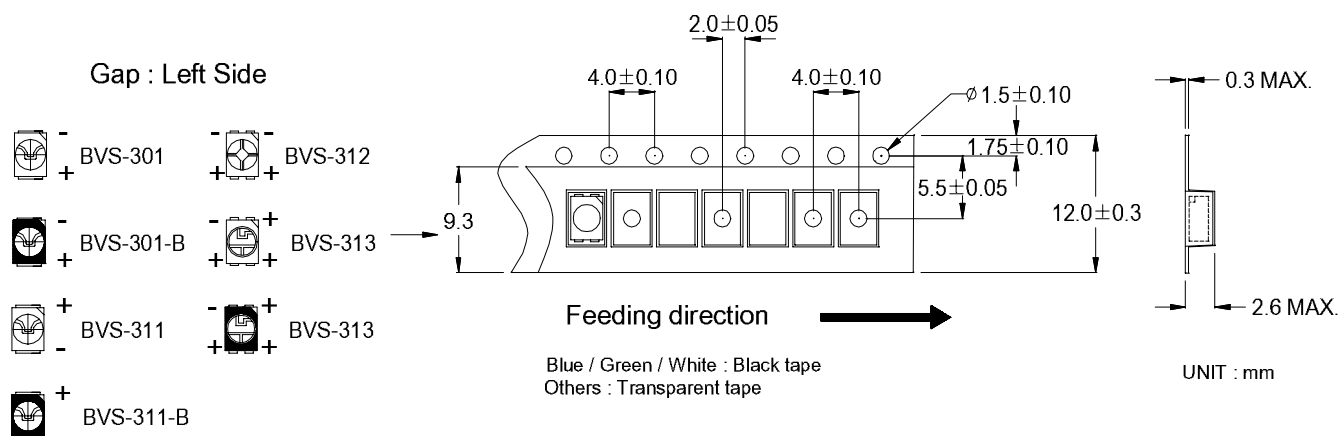
- (2.1) When soldering, do not put stress on the LEDs during heating.
- (2.2) Never take next process until the component is cooled down to room temperature after reflow.
- (2.3) After soldering, do not warp the circuit board.
- (2.4) The recommended reflow soldering profile (measuring on the surface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



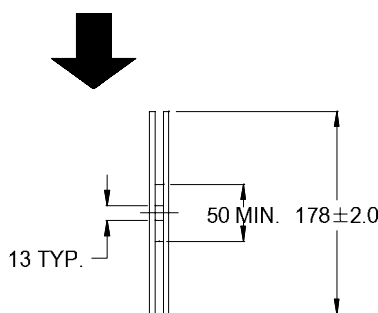
The reflow temperature 245°C~255°C is recommended and the soldering temperature should be not higher than 255°C



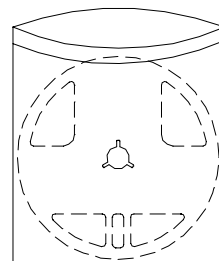
TOP LEDS PACKING (A)



Reel : 1,500PCS



UNIT : mm



Label 1

Bright View Electronics Co.,Ltd.

PART NO.: BVS-30XXXX

LOT NO.: _____

GRADE: X- Δ - ■

Q'ty _____ pcs QA

Normal

X: Bin grade
Δ: Wavelength
■: Vf

Label 2

Bright View Electronics Co.,Ltd.

PART NO.: _____

LOT NO.: _____

GRADE: _____

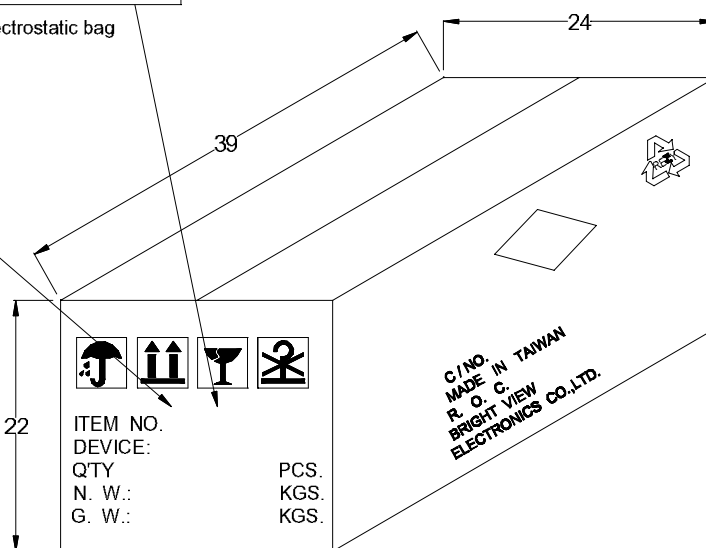
Q'ty _____ pcs QA

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