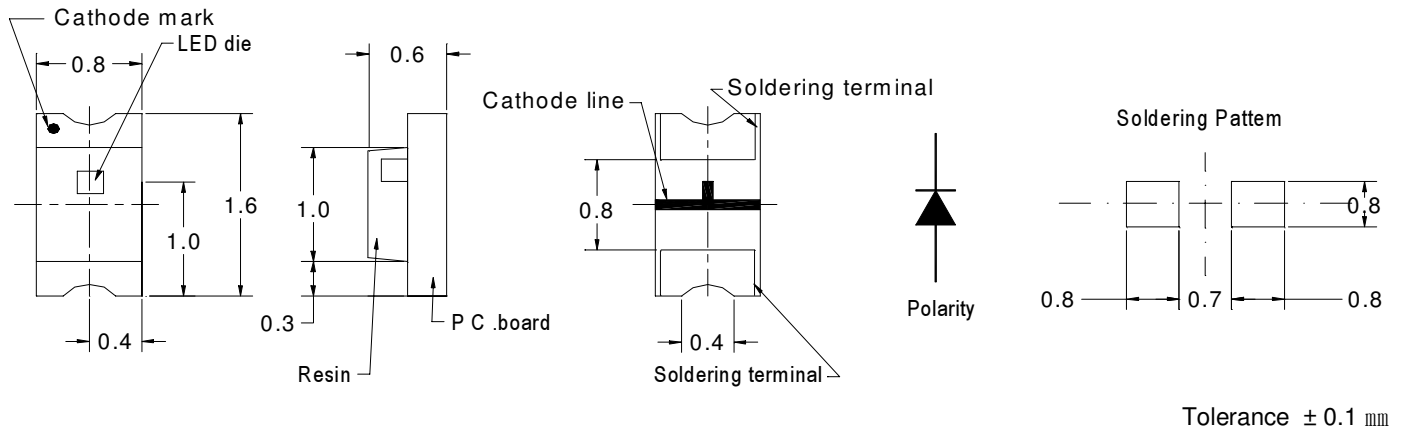




BVS-166BK2

PACKAGE CONFIGURATION



DESCRIPTION

Dice Material : InGaN Blue
Light Color : Blue Color
Lens Color : Milky Diffused

ABSOLUTE MAXIMUM RATINGS AT Ta = 25 °C

PARAMETER	MAX.	UNIT
Power Dissipation(PD)	85	mW
Continuous Forward Current(IF)	20	mA
Peak Forward Current (1/10 Duty Cycle , 0.1ms Pulse Width)(IFP)	80	mA
Reverse Voltage(VR)	5	V
Derating Linear From 25 °C	0.35	mA/°C
Operating Temperature Range(Topr)	-30 to + 80	°C
Storage Temperature Range(Tstg)	-40 to + 85	°C
Reflow Soldering Condition 260 °C for 5 seconds		

ELECTRICAL / OPTICAL CHARACTERISTICS AT Ta = 25 °C

SYMBOL	PARAMETER	TEST COND.	MIN.	TYP.	MAX.	UNIT
V _F	Forward Voltage	I _F = 20 mA		3.4	4.2	V
I _R	Reverse Current	V _R = 5V			10	μA
λ _p	Peak Emission Wavelength	I _F = 20 mA		465		nm
λ _d	Dominant Wavelength	I _F = 20 mA		470		nm
2θ _{1/2}	Viewing Angle	I _F = 20 mA		130		Deg

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

Bin	w	x	y	z	A	B
Min.	36	47	60	78	100	130
Max.	47	60	78	100	130	168

Tolerance ± 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.

*θ_{1/2} is the off-axis angle where the luminous intensity is one half the on-axis intensity.

*These products are sensitive to static electricity. Caution must be taken strictly to avoid static electricity.



BVS-166BK2

TYPICAL ELECTRICAL / OPTICAL CHARACTERISTIC CURVES

FIG. 1 Forward Current vs. Forward Voltage
($T_a = 25^\circ\text{C}$)

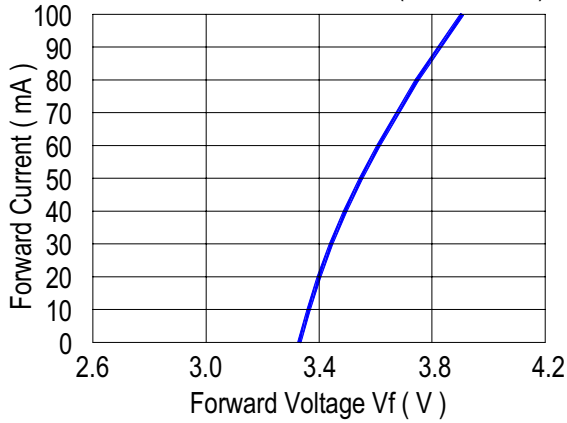


FIG. 2 Relative Intensity vs. Forward Current
($T_a = 25^\circ\text{C}$)

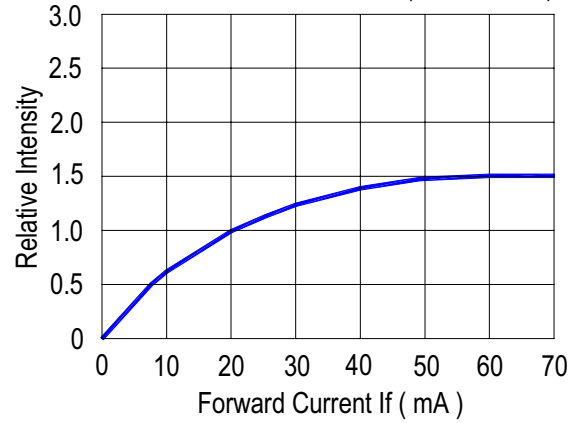


FIG. 3 Relative Voltage vs. Temperature

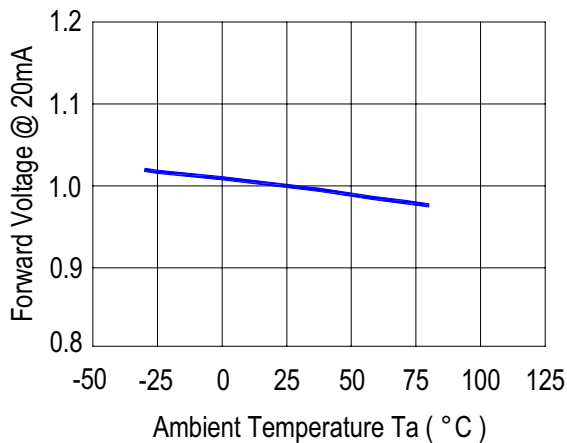


FIG. 4 Relative Intensity vs. Temperature

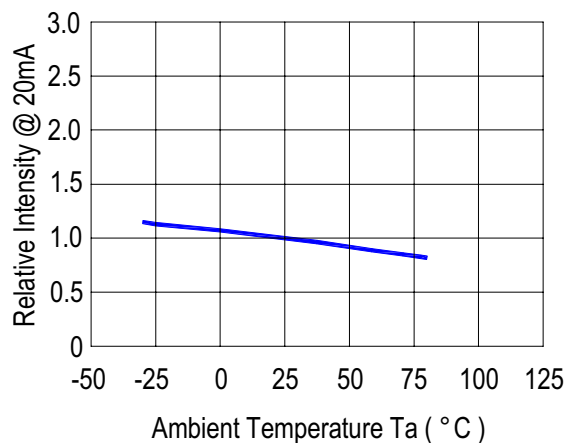


FIG. 5 Relative Intensity vs. Wavelength (λ_p)
($T_a = 25^\circ\text{C}$)

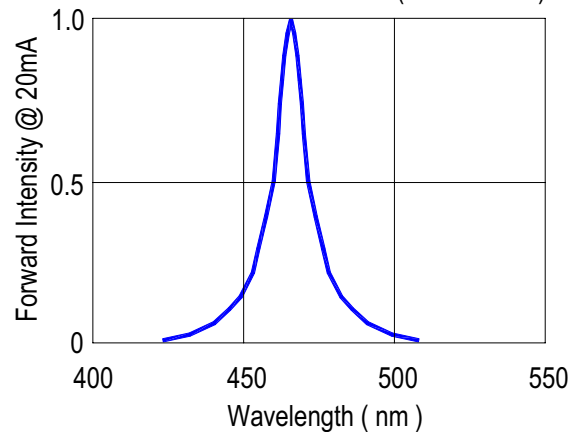
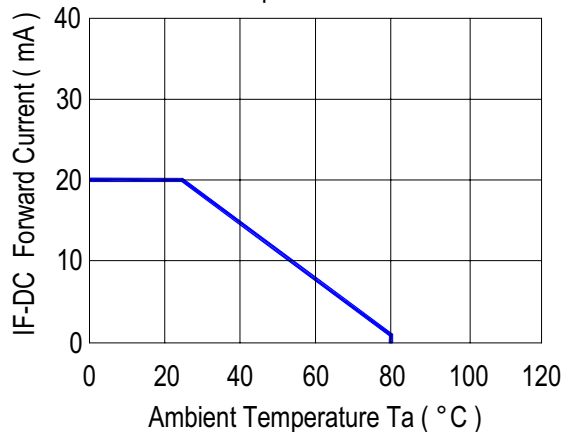


FIG. 6 Maximum Forward Current vs. Temperature





靜電防治

These products are Gallium Nitride(GaN) or Indium Gallium Nitride(InGaN) light emitting diodes(LEDs). There are extremely sensitive to static electricity ESD damage. The user must take absolutely secure countermeasures against static electricity and surge when handling products.

顯明 LED 晶片材質為 Gallium Nitride(GaN)或 Indium Gallium Nitride(InGaN)，此材質對於靜電極為敏感，十分容易受靜電衝擊而產生破壞，使用者接觸產品時必需做好對靜電衝擊之防護措施。

Bright View Blue, Green are GaN/ Sic or InGaN/ Sic materials are ESD classified, any manufacturing or workstations where GaN/ Sic or InGaN/ Sic devices are handled should be rated at "Class 2" 100V maximum.

顯明之藍、綠光晶片材質為 GaN/Sic 或 InGaN/ Sic，此材質屬 ESD 規範，任何 GaN/ Sic 或 InGaN/ Sic 產品所會被接觸的製造或工作站必須控制在 100V 以下。

Proper grounding of products (via $1M\Omega$), use of conductive mat, semiconductive working uniform and shoes, and semiconductive containers are considered to be effective as countermeasures against static electricity and surge.

適當的產品接地（ $1M\Omega$ ）與使用導電桌墊，並評估考慮穿著防靜電工作服、防靜電鞋與防靜電盒來有效地防制靜電之衝擊。

An ionizer is recommended to be used in the facility or environment where static electricity may be generated easily, and soldering iron with a grounded tip is also recommended.

建議對於工廠設施與環境中容易產生靜電的地點使用離子風扇吹拂，且也建議使用有接地功能的烙鐵進行焊接。

To install a protection device, in the LED driving circuit, which does not exceed the max rating for surge current during on/off switching.

在驅動 LED 的電路上設置保護裝置，使其當開閉時的瞬間電流不會超出最大電壓值。



Apply to BVS-3XX 、 1XX series.

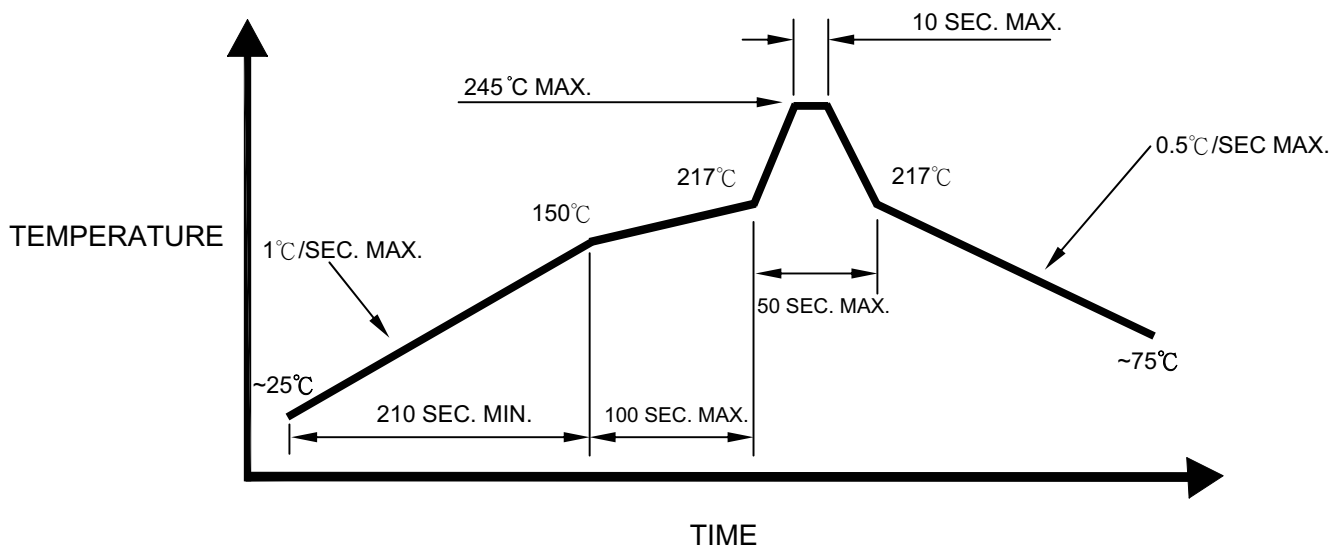
Description:

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

- (1.1) To prevent cracking, please bake (65°C, 24hrs) before soldering.
- (1.2) Temperature at tip of iron: 250°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

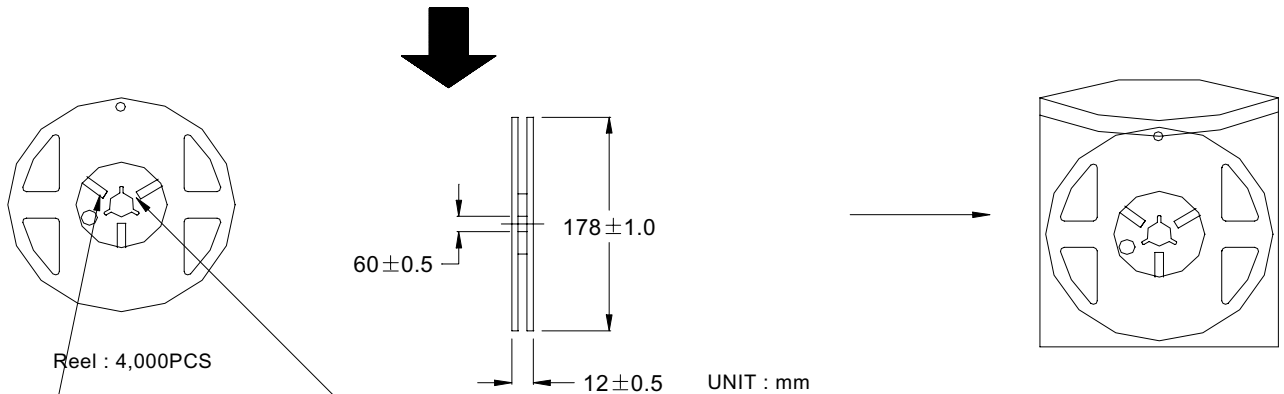
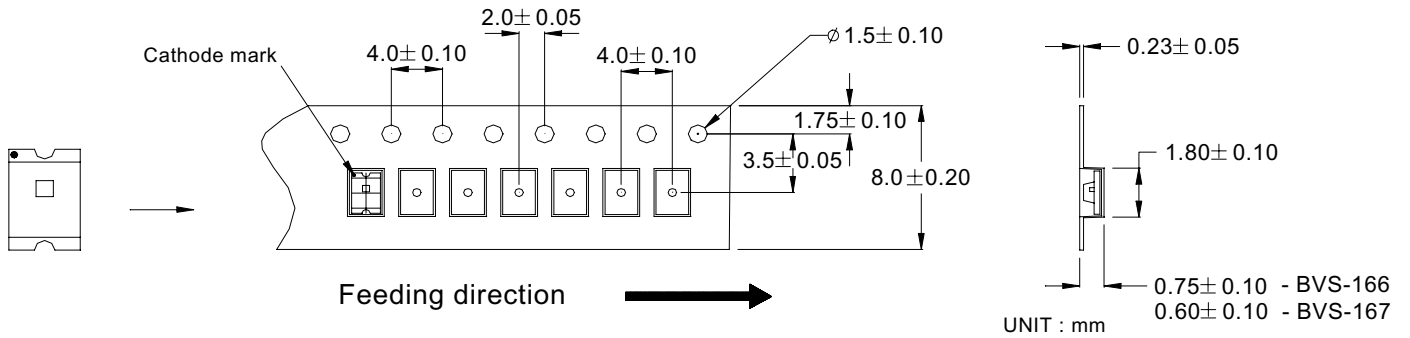
- (2.1) To prevent cracking, please bake (65°C, 24hrs) before soldering.
- (2.2) When soldering, do not put stress on the LEDs during heating.
- (2.3) Never take next process until the component is cooled down to room temperature after reflow.
- (2.4) After soldering, do not warp the circuit board.
- (2.5) The recommended reflow soldering profile (measuring on the surface of the LED resin) is following:



The reflow temperature 240°C~245°C is recommended and the soldering temperature should be not higher than 245°C (one time only)



BVS-166/167 Series



Label 1

Bright View Electronics Co.,Ltd.

PART NO.: BVS-16XXXX

LOT NO.: _____

GRADE: X- △ - ■

Q'ty _____ pcs QA

Label 2

Bright View Electronics Co.,Ltd.

PART NO.: _____

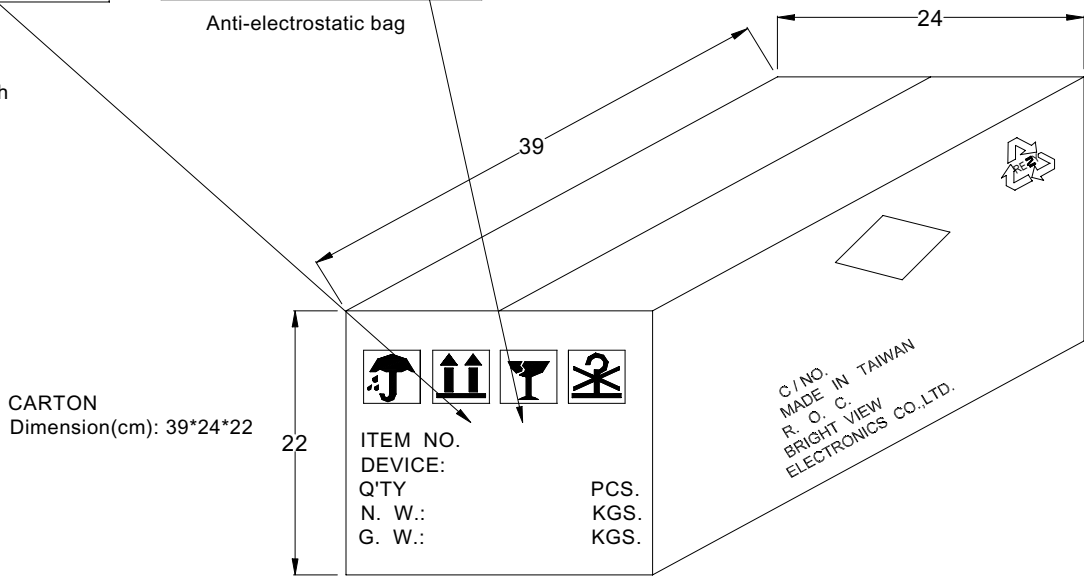
LOT NO.: _____

GRADE: _____

Q'ty _____ pcs QA

CAUTION
ELECTROSTATIC SENSITIVE DEVICES
DO NOT OPEN OR HANDLE EXCEPT
AT A STATIC-FREE WORKSTATION

Normal
X: Bin grade
△: Wavelength
■: Vf



Carton : 30 Reels
Total : 120,000PCS