

# **BVS-8330RGB4**

#### **DESCRIPTION**

#### **PACKAGE CONFIGURATION**

Dice Material: B: GaN Blue

G: GaN Green

R: AlGaInP Red

Light Color: B: Blue color

G: Green color

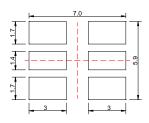
R: Red color

Lens Color: Water transparent

# 5.5±0.15 B 1 0 6 B G 2 0 5 G R 3 0 4 R

### Tolerance ±0.25 mm

# INFRARED / VAPOR PHASE REFLOW SOLDERING



# ABSOLUTE MAXIMUM RATINGS AT Ta = 25 $^{\circ}$ C

PARAMETER	BLUE	GREEN	RED	UNIT
Power Dissipation	120	120	75	mW
Continuous Forward Current	30	30	30	mA
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width	) 80	80	80	mA
Reverse Voltage	5	5	5	V
Derating Linear From 25°C	0.4	0.4	0.35	mA/°C
Operating Temperature Range		- 30 to $+$ 85		°C
Storage Temperature Range		- 40 to $+$ 100		°C
Reflow Soldering Condition 245 °C for 10 seconds		_		•

# ELECTRICAL / OPTICAL CHARACTERISTICS AT Ta = 25 $^{\circ}$ C

	\	/ <sub>F</sub>	I,	₹	λр	λd	2 <i>θ</i> 1/2		I <sub>V</sub>	
COLOR	(V)		(μΑ)		(nm)	(nm)	(Deg.)	(mcd)		
	TYP.	MAX.	at V <sub>R</sub> =V	MAX.	TYP.	TYP.	TYP.	MIN.	TYP.	MAX.
BLUE	3.1	4	5	20	467	475	120	200	250	-
GREEN	3.2	4	5	20	518	525	120	600	700	-
RED	2.2	2.5	5	100	635	625	120	450	500	-

Tolerance ±15% mcd

<sup>\*</sup> Bright View reserves the rights to alter specifications and remove availability of products at any time without notice.

<sup>\*</sup> Dominant Wavelength, λd is according to CIE Chromaticity Diagram base on color of lamps.

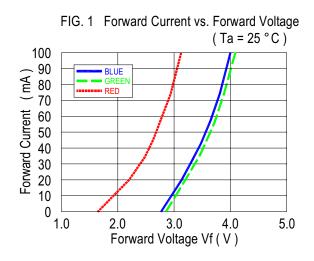
<sup>\* 01/2</sup> is the off-axis angle where the luminous intensity is one half the on-axis intensity.

<sup>\*</sup> These products are sensitive to static electricity. Caution must be taken strictly to avoid static electricity.



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# TYPICAL ELECTRICAL / OPTICAL CHARACTERISTIC CURVES



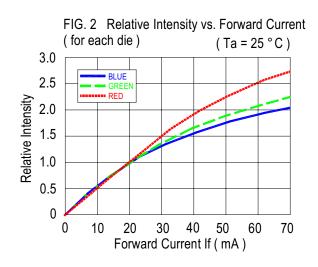


FIG. 3 Forward Voltage vs. Temperature

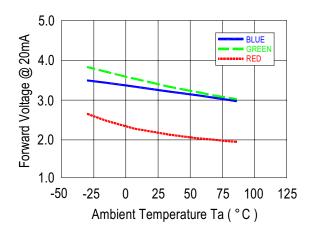


FIG. 4 Relative Intensity vs. Temperature

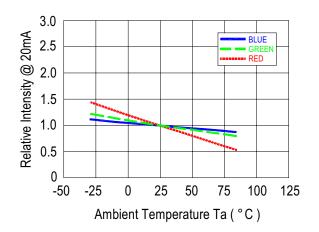


FIG. 5 Relative Intensity vs. Wavelength ( λp )

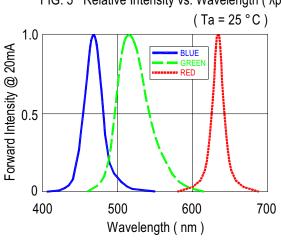
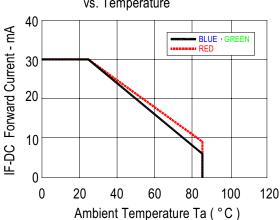
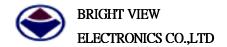


FIG. 6 Maximum Forward Current vs. Temperature





#### CAUTION FOR STATIC ELECTRICITY(BASE UPON MACHINE MODE)

# 靜電防治

These products are Gallium Nitride(GaN) 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 晶片材質爲 Gallium Nitride(GaN),此材質對於靜電極爲敏感,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 BA, GN, WI are GaN materials are ESD classified as "Class 1", any manufacturing or workstations where GaN devices are handled should be rated at 50V or below.

顯明之 BA、GN、WI 晶片材質爲 GaN,此材質屬 ESD 規範中的"Class 1"等級,任何 GaN產品所會被接觸的製造或工作站必須控制在 50V 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 countermeters 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。