

PRELIMINARY SPEC

Part Number: AAAF5060BESEEVGA



ATTENTION
OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
DISCHARGE
SENSITIVE
DEVICES

BLUE
HYPER ORANGE
GREEN

Features

- CHIPS CAN BE CONTROLLED SEPARATELY.
- SUITABLE FOR ALL SMT ASSEMBLY AND SOLDER PROCESS.
- AVAILABLE ON TAPE AND REEL.
- PACKAGE: 500PCS / REEL.
- MOISTURE SENSITIVITY LEVEL : LEVEL 4.
- RoHS COMPLIANT.

Description

The Blue source color devices are made with InGaN on SiC Light Emitting Diode.

The Hyper Orange source color devices are made with DH InGaAlP on GaAs substrate Light Emitting Diode.

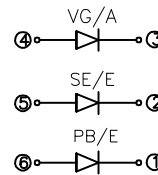
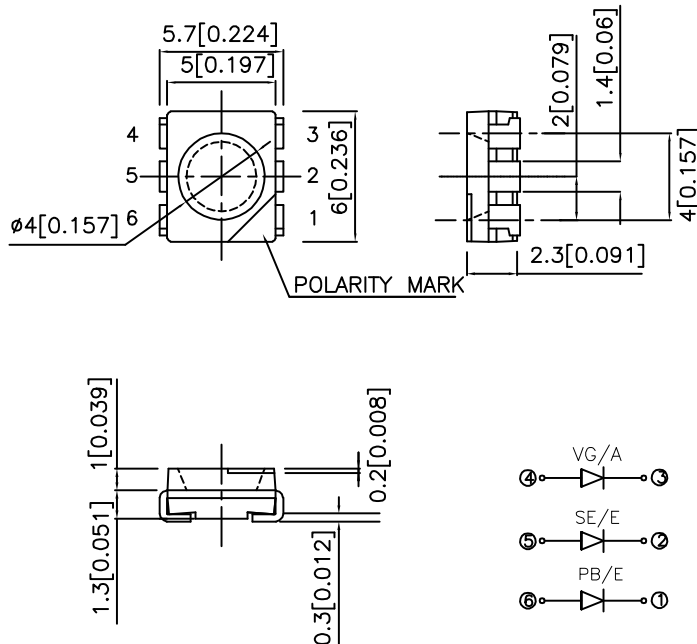
The Green source color devices are made with InGaN on G-SiC Light Emitting Diode.

Static electricity and surge damage the LEDs.

It is recommended to use a wrist band or anti-electrostatic glove when handling the LEDs.

All devices, equipment and machinery must be electrically grounded.

Package Dimensions



Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is $\pm 0.25(0.01)$ unless otherwise noted.
3. Specifications are subject to change without notice.

Selection Guide

Part No.	Dice	Lens Type	Iv (mcd) [2] @ 30mA *50mA		Viewing Angle [1]
			Min.	Typ.	2 θ 1/2
AAAF5060BESEEVGA	BLUE (InGaN)	WATER CLEAR	110	250	100°
	HYPER ORANGE(InGaAlP)		*650	*1000	
	GREEN (InGaN)		180	350	

Notes:

1. θ1/2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.
2. *Luminous intensity with asterisk is measured at 50mA; Luminous intensity / luminous flux: +/-15%.

Electrical / Optical Characteristics at TA=25°C

Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
λ_{peak}	Peak Wavelength	Blue Hyper Orange Green	465 630 520		nm	I _F =20mA
λ_D [1]	Dominant Wavelength	Blue Hyper Orange Green	470 621 525		nm	I _F =20mA
$\Delta\lambda_{1/2}$	Spectral Line Half-width	Blue Hyper Orange Green	25 20 35		nm	I _F =20mA
C	Capacitance	Blue Hyper Orange Green	110 25 100		pF	V _F =0V;f=1MHz
V _F [2]	Forward Voltage	Blue Hyper Orange Green	3.7 2.0 3.2	4.3 2.5 4.0	V	I _F =20mA
I _R	Reverse Current	Blue Hyper Orange Green		10 10 10	uA	V _R = 5V

Notes:

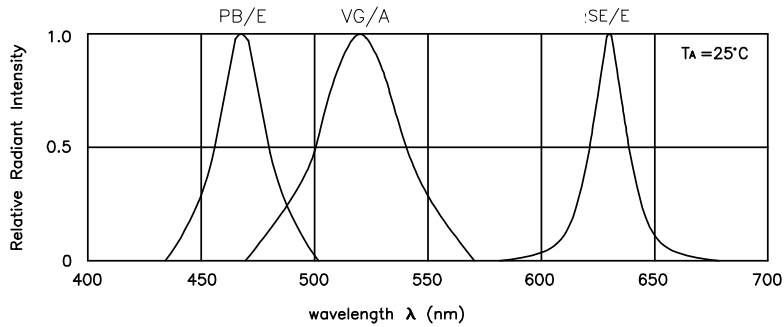
1. Wavelength: +/-1nm.
2. Forward Voltage: +/-0.1V.

Absolute Maximum Ratings at TA=25°C

Parameter	Blue	Hyper Orange	Green	Units
Power dissipation [2]	350			mW
DC Forward Current	30	50	50	mA
Peak Forward Current [1]	160	195	100	mA
Reverse Voltage	5	5	5	V
Operating / Storage Temperature	-40°C To +85°C			

Notes:

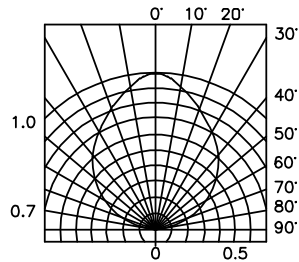
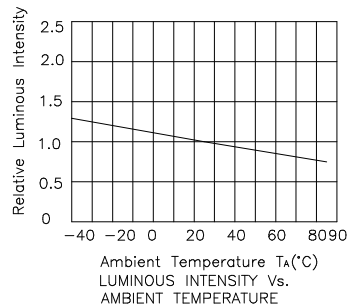
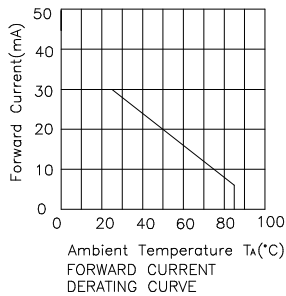
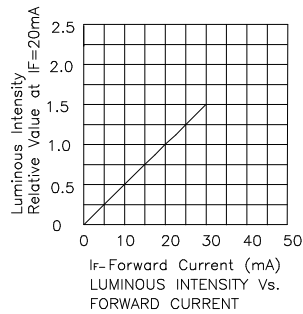
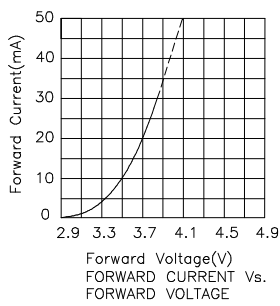
1. 1/10 Duty Cycle, 0.1ms Pulse Width.
2. Within 350mW at all chips are lightened.



RELATIVE INTENSITY Vs. WAVELENGTH

AAAF5060BESEEVGA

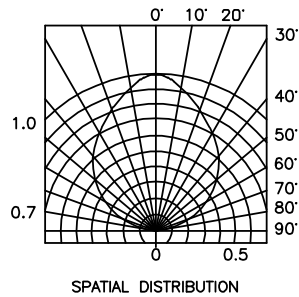
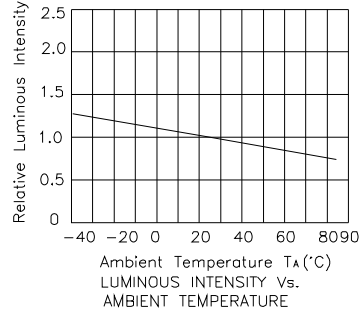
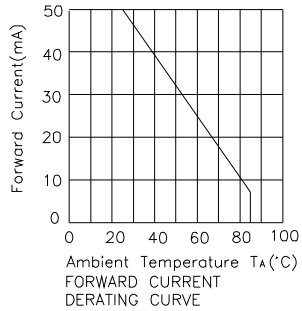
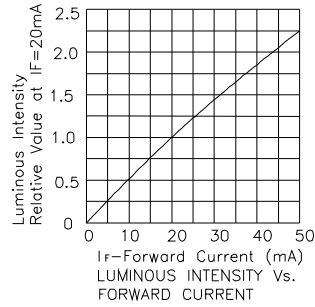
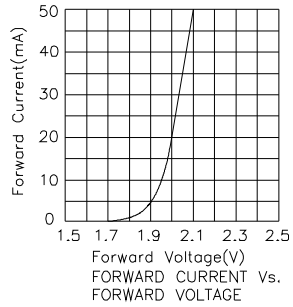
Blue



SPATIAL DISTRIBUTION

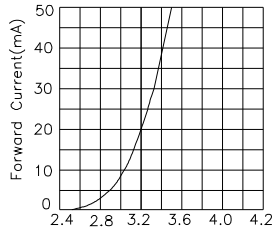
Kingbright

Hyper Orange

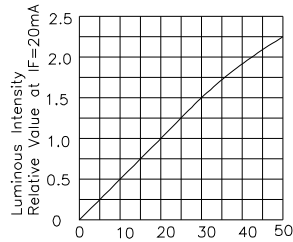


Kingbright

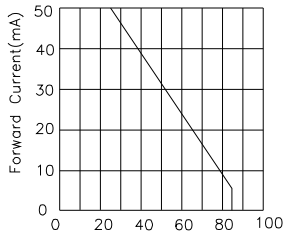
Green



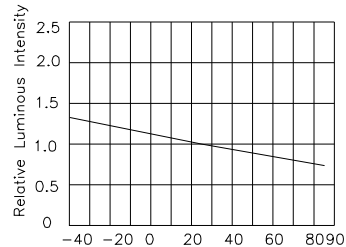
Forward Voltage(V)
FORWARD CURRENT Vs
FORWARD VOLTAGE



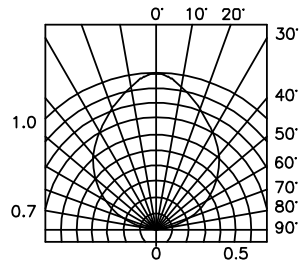
I_f -Forward Current (mA)
LUMINOUS INTENSITY Vs.
FORWARD CURRENT



Ambient Temperature T_a (°C)
FORWARD CURRENT
DERATING CURVE



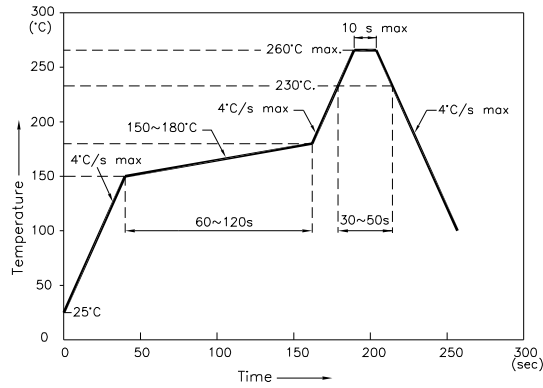
Ambient Temperature T_a (°C)
LUMINOUS INTENSITY Vs.
AMBIENT TEMPERATURE



SPATIAL DISTRIBUTION

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Reflow Soldering Profile For Lead-free SMT Process.

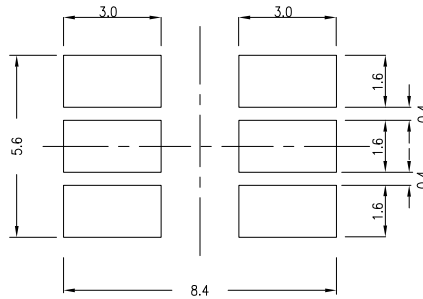


NOTES:

1. We recommend the reflow temperature 245°C(+/-5°C). The maximum soldering temperature should be limited to 260°C.
2. Don't cause stress to the epoxy resin while it is exposed to high temperature.
3. Number of reflow process shall be 2 times or less.

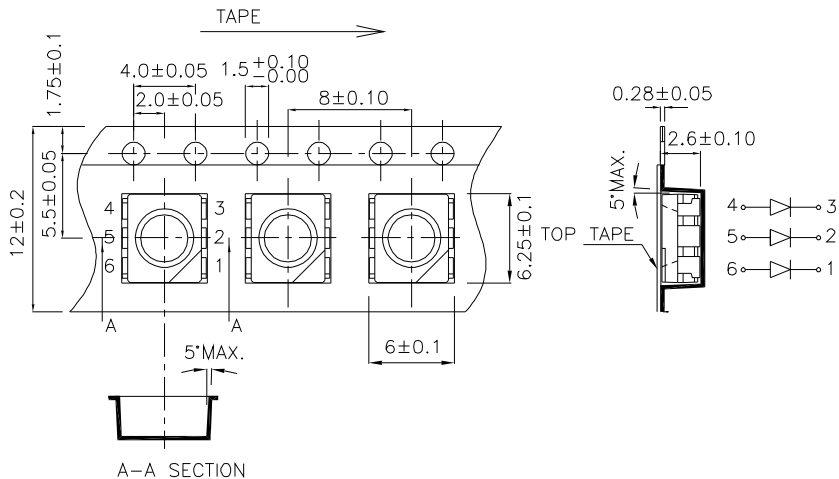
Recommended Soldering Pattern

(Units : mm; Tolerance: ± 0.1)



Tape Specifications

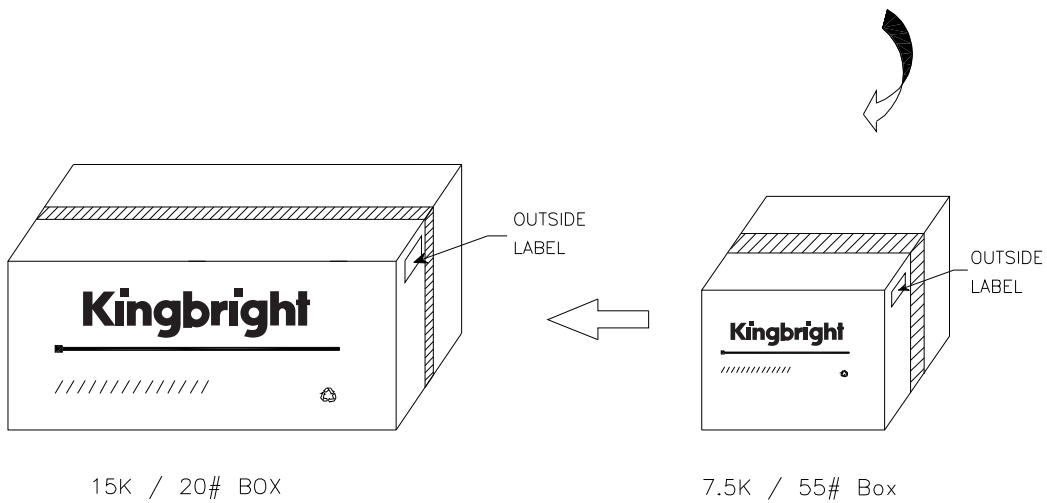
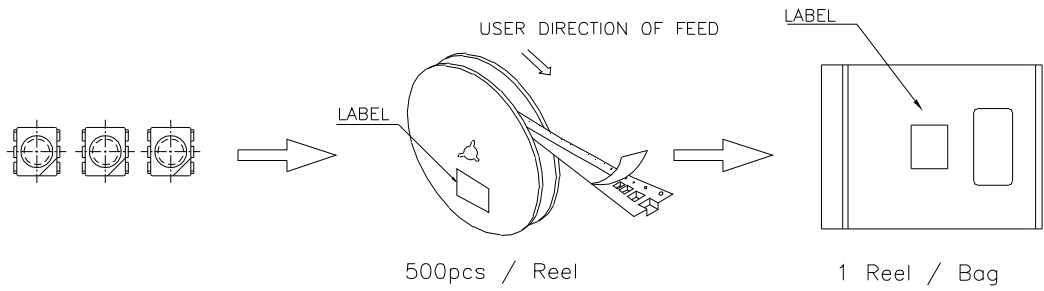
(Units : mm)




Kingbright

PACKING & LABEL SPECIFICATIONS

AAAF5060BESEEVGA



Kingbright	
P/NQ: AAAF5060xxx	
QTY: 500 pcs	Q.C. Q C xx xx. xxx PASSED
S/N: XXXX	
CODE: XXX	
LOT NO:	
	
MADE IN CHINA	RoHS Compliant