

PRELIMINARY SPEC



ATTENTION
OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
DISCHARGE
SENSITIVE
DEVICES

Part Number: AAAF3528PBGSEJVGAW

BLUE
HYPER ORANGE
GREEN

Features

- OUTSTANDING MATERIAL EFFICIENCY.
- LOW POWER CONSUMPTION.
- ONE BLUE, ONE ORANGE AND ONE GREEN CHIPS IN ONE PACKAGE.
- CAN PRODUCE ANY COLOR IN VISIBLE SPECTRUM, INCLUDING WHITE LIGHT.
- SUITABLE FOR ALL SMT ASSEMBLY AND SOLDER PROCESS.
- AVAILABLE ON TAPE AND REEL.
- MOISTURE SENSITIVITY LEVEL : LEVEL 4.
- RoHS COMPLIANT.

Description

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

The Super Bright device is based on light emitting diode chip made from AlInGaP.

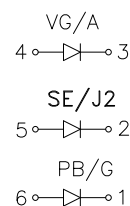
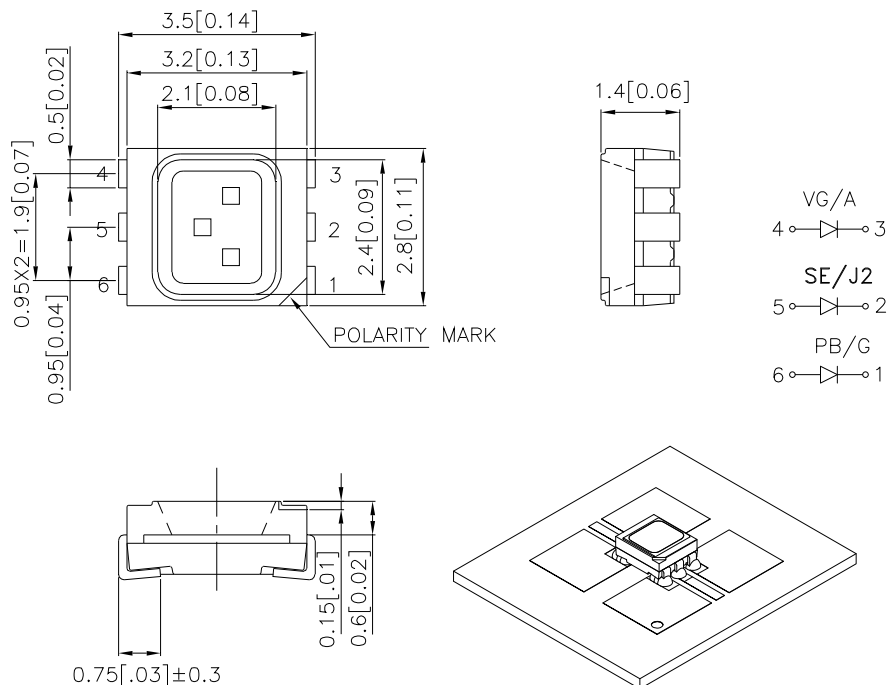
The Green source color devices are made with InGaN on G-SiC Light Emitting Diode.

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 $\pm 0.2(0.008)$ unless otherwise noted.
3. Specifications are subject to change without notice.
4. The device has a single mounting surface. The device must be mounted according to the specifications.



Selection Guide

Part No.	Dice	Lens Type	Iv (mcd) [2] @ 20mA		Viewing Angle [1]
			Min.	Typ.	2θ1/2
AAAF3528PBGSEJVGAW	BLUE (InGaN)	WHITE DIFFUSED	70	200	120°
	HYPER ORANGE (AlGaInP)		900	1700	
	GREEN (InGaN)		110	330	

Notes:

1. θ1/2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.
2. 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	468 640 520		nm	I _F =20mA
λ _D [1]	Dominant Wavelength	Blue Hyper Orange Green	470 630 525		nm	I _F =20mA
Δλ _{1/2}	Spectral Line Half-width	Blue Hyper Orange Green	21 25 35		nm	I _F =20mA
C	Capacitance	Blue Hyper Orange Green	100 27 100		pF	V _F =0V;f=1MHz
V _F [2]	Forward Voltage	Blue Hyper Orange Green	3.2 2.2 3.2	4.0 2.8 4.0	V	I _F =20mA
I _R	Reverse Current	Blue Hyper Orange Green		10 10 10	uA	V _R = 5V

Notes:

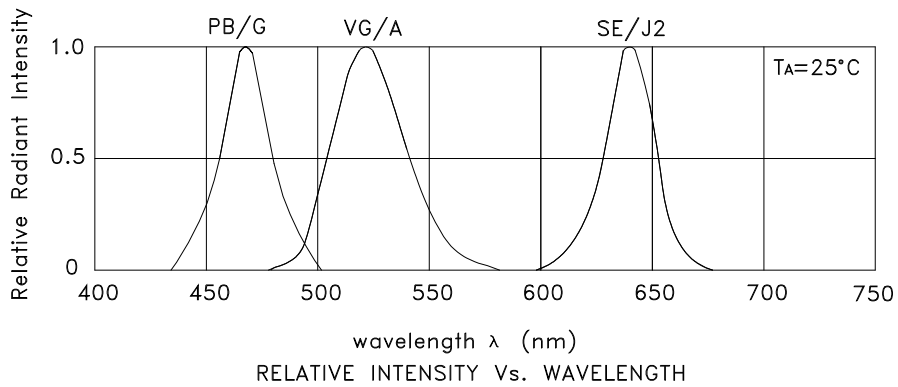
1. Wavelength: +/-1nm.
2. Forward Voltage: +/-0.1V.

Absolute Maximum Ratings at TA=25°C

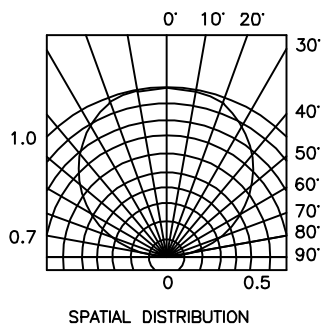
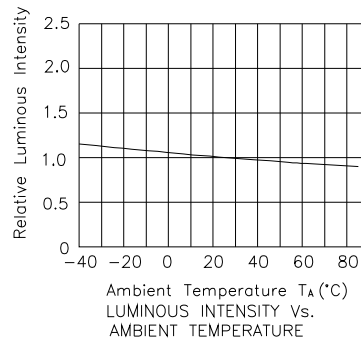
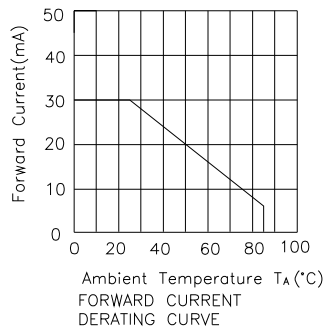
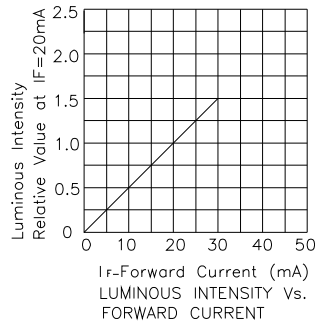
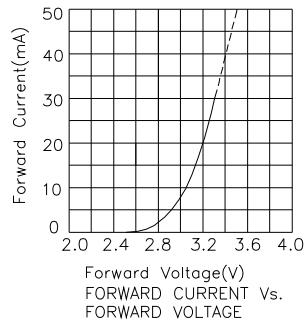
Parameter	Blue	Hyper Orange	Green	Units
Power dissipation	120	140	200	mW
DC Forward Current	30	50	50	mA
Peak Forward Current [1]	100	150	100	mA
Reverse Voltage	5			V
Operating / Storage Temperature	-40°C To +85°C			

Note:

1. 1/10 Duty Cycle, 0.1ms Pulse Width.

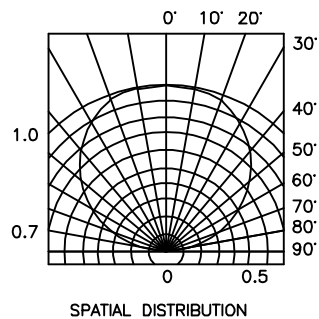
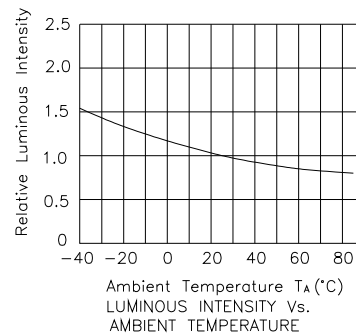
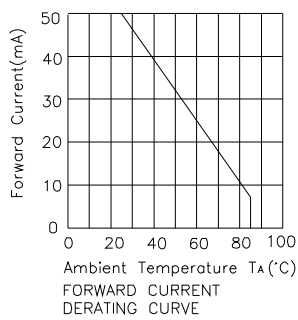
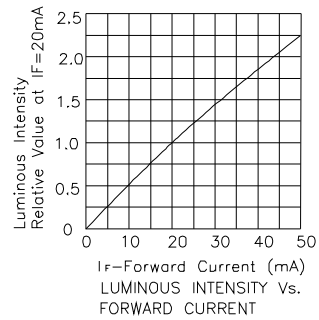
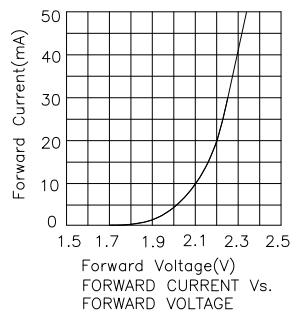


AAAF3528PBGSEJVGAW Blue



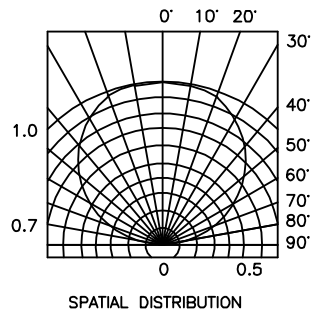
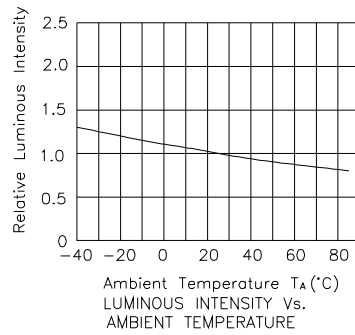
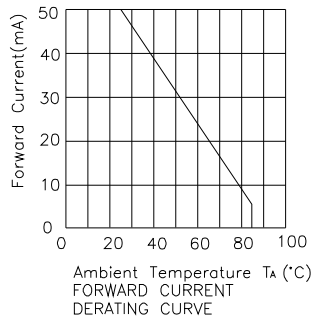
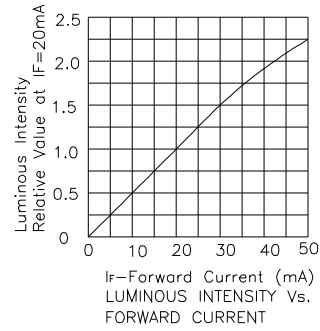
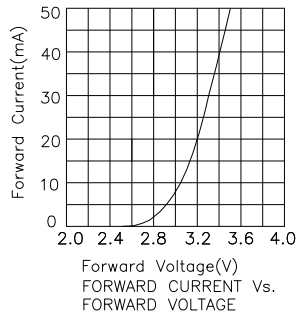
Kingbright

Hyper Orange



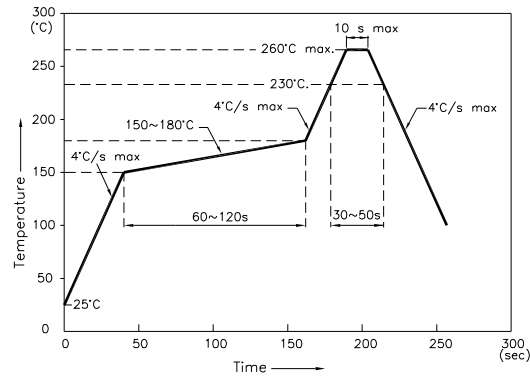
Kingbright

Green



AAAF3528PBGSEJVGAW

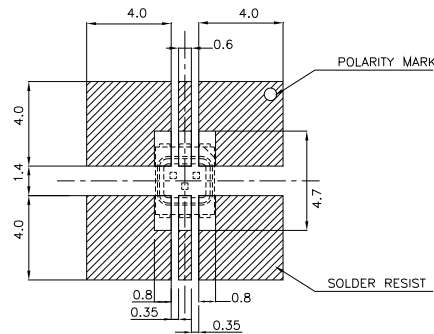
Reflow Soldering Profile For Lead-free SMT Process.



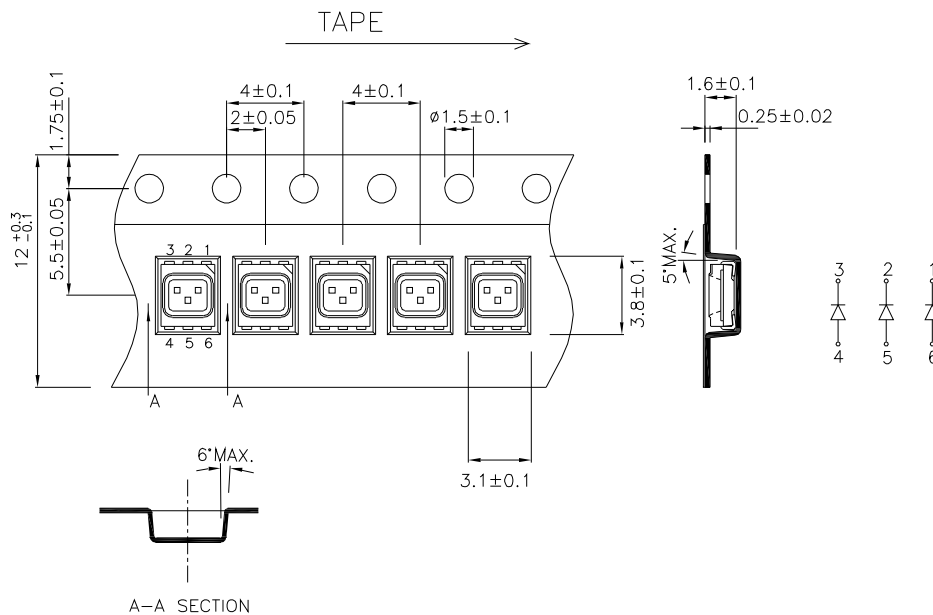
NOTES:

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)

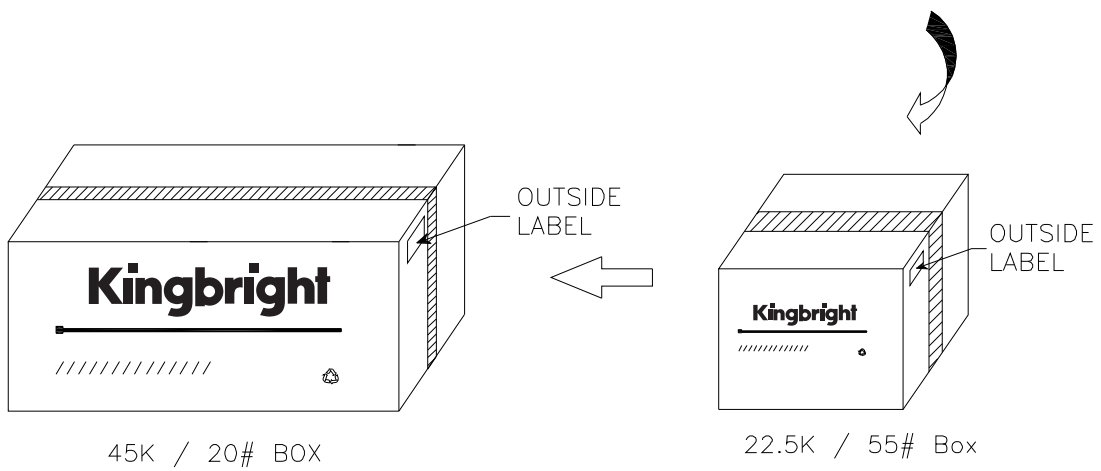
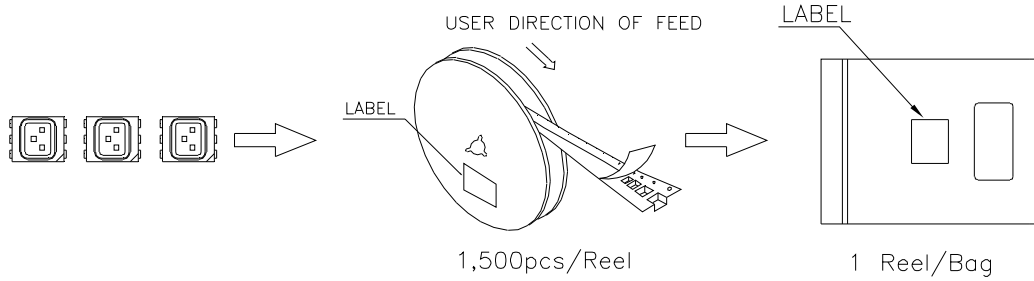



Tape Specifications (Units : mm)



PACKING & LABEL SPECIFICATIONS

AAAF3528PBGSEJVGAW



Kingbright	
P/N : AAAF3528xxx	
QTY: 1,500 pcs	Q.C. Q C xx xx xxxx PASSED
S/N: XXXX	
CODE: XXX	
LOT NO:	
 xxxxxxxxxxxxxxxxxxxxxxxx	
RoHS Compliant	