

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.

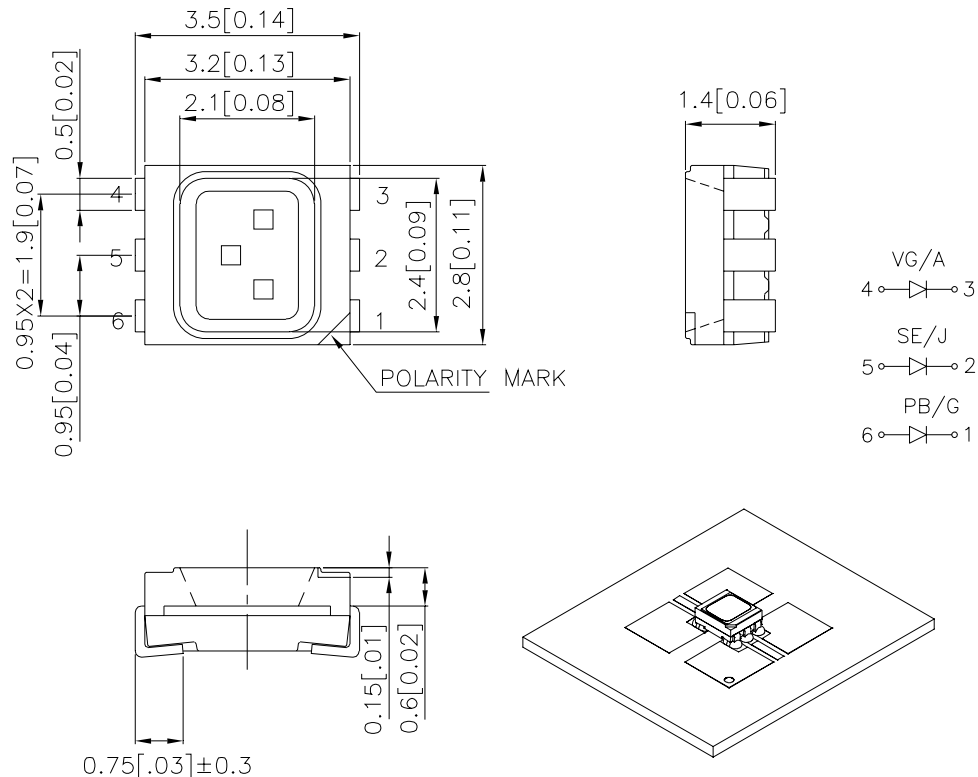
The Super Bright device is based on a light emitting diode chip made from AlGaInP and bonded on silicon substrate. The Green source color devices are made with InGaN on G-SiC Light Emitting Diode.

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. $\theta_{1/2}$ 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 T_A=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
$\Delta\lambda_{1/2}$	Spectral Line Half-width	Blue Hyper Orange Green	26 25 35		nm	I _F =20mA
C	Capacitance	Blue Hyper Orange Green	110 27 100		pF	V _F =0V; f=1MHz
V _F [2]	Forward Voltage	Blue Hyper Orange Green	3.6 2.0 3.2	4.3 2.8 4.0	V	I _F =20mA
I _R	Reverse Current	Blue Hyper Orange Green		10 10 10	uA	V _R = 5V

Notes:

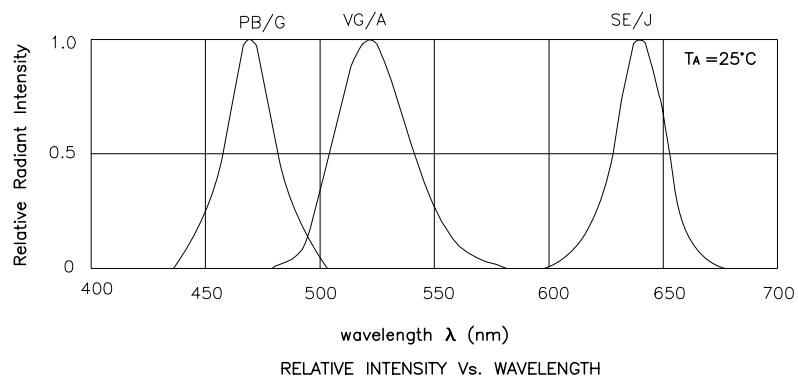
1. Wavelength: +/-1nm.
2. Forward Voltage: +/-0.1V.

Absolute Maximum Ratings at T_A=25°C

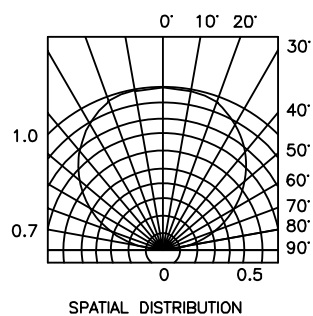
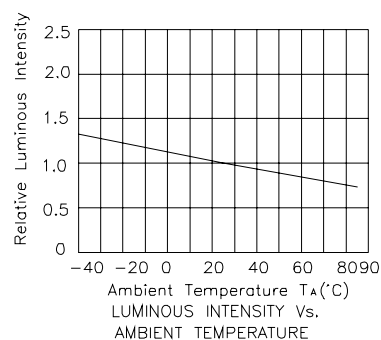
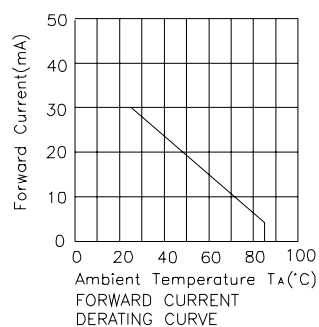
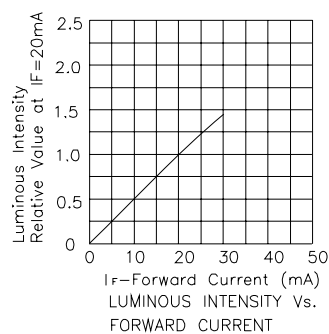
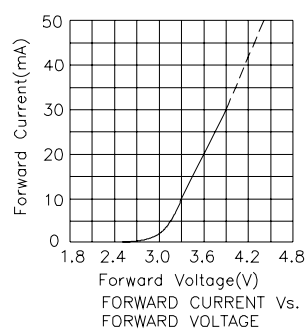
Parameter	Blue	Hyper Orange	Green	Units
Power dissipation	129	140	200	mW
DC Forward Current	30	50	50	mA
Peak Forward Current [1]	150	150	100	mA
Reverse Voltage	5			V
Operating / Storage Temperature	-40°C To +85°C			

Note:

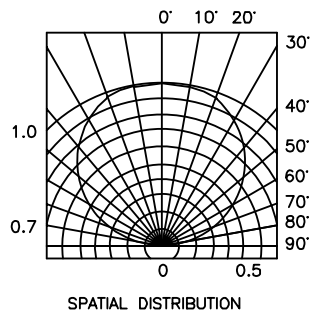
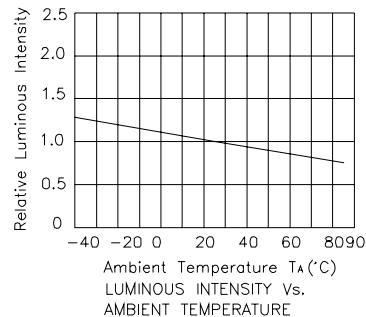
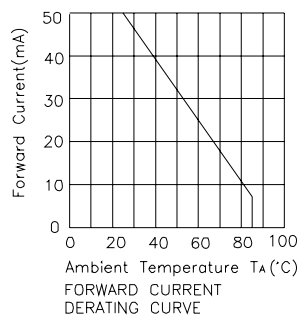
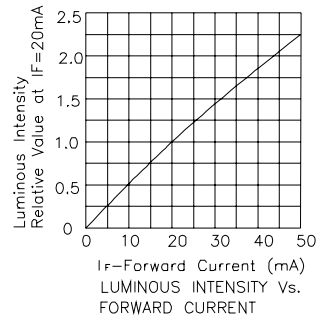
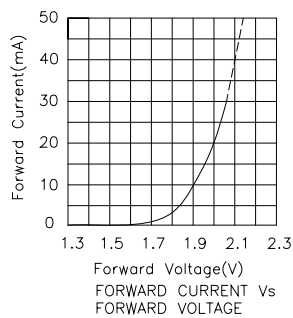
1. 1/10 Duty Cycle, 0.1ms Pulse Width.



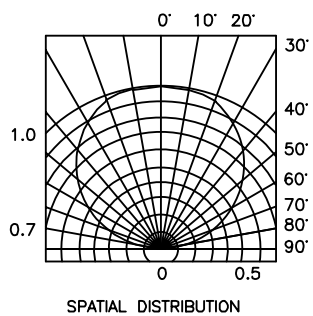
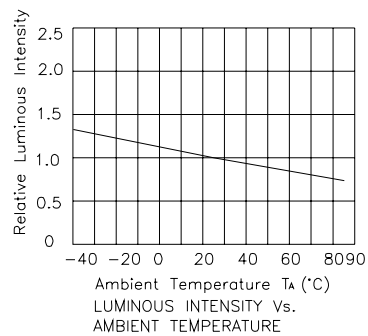
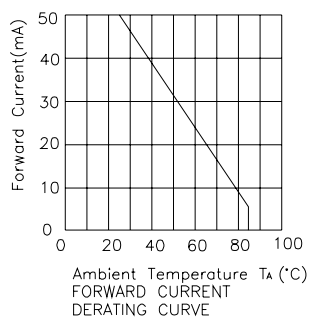
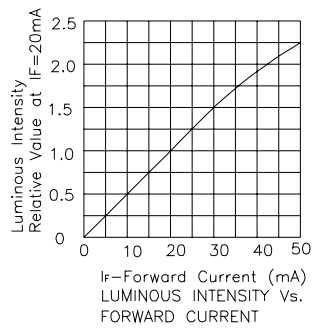
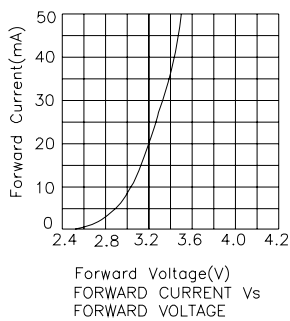
AAAF3528PBGSEJVGAW Blue



Hyper Orange

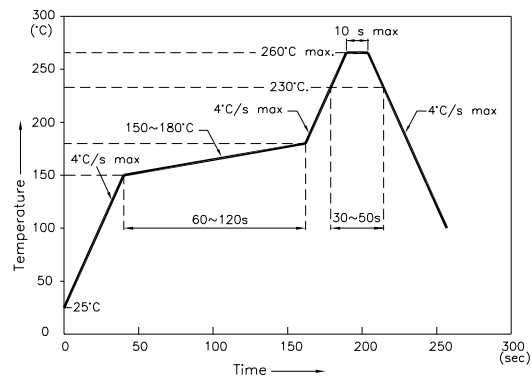


Green



AAAF3528PBGSEJVGAW

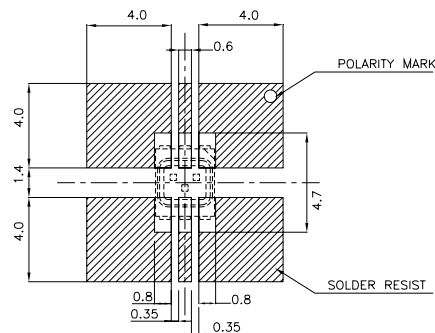
Reflow Soldering Profile For Lead-free SMT Process.



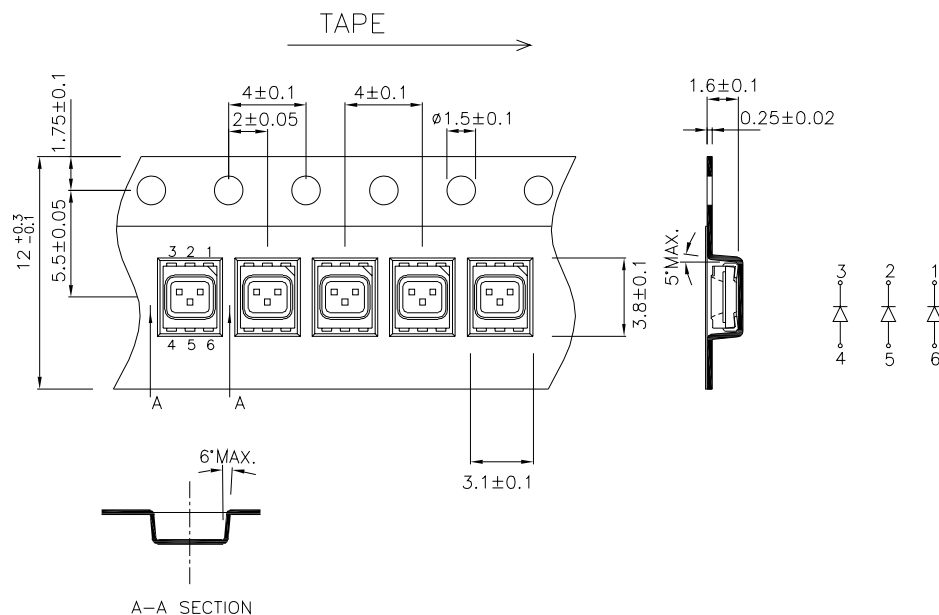
NOTES:

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)

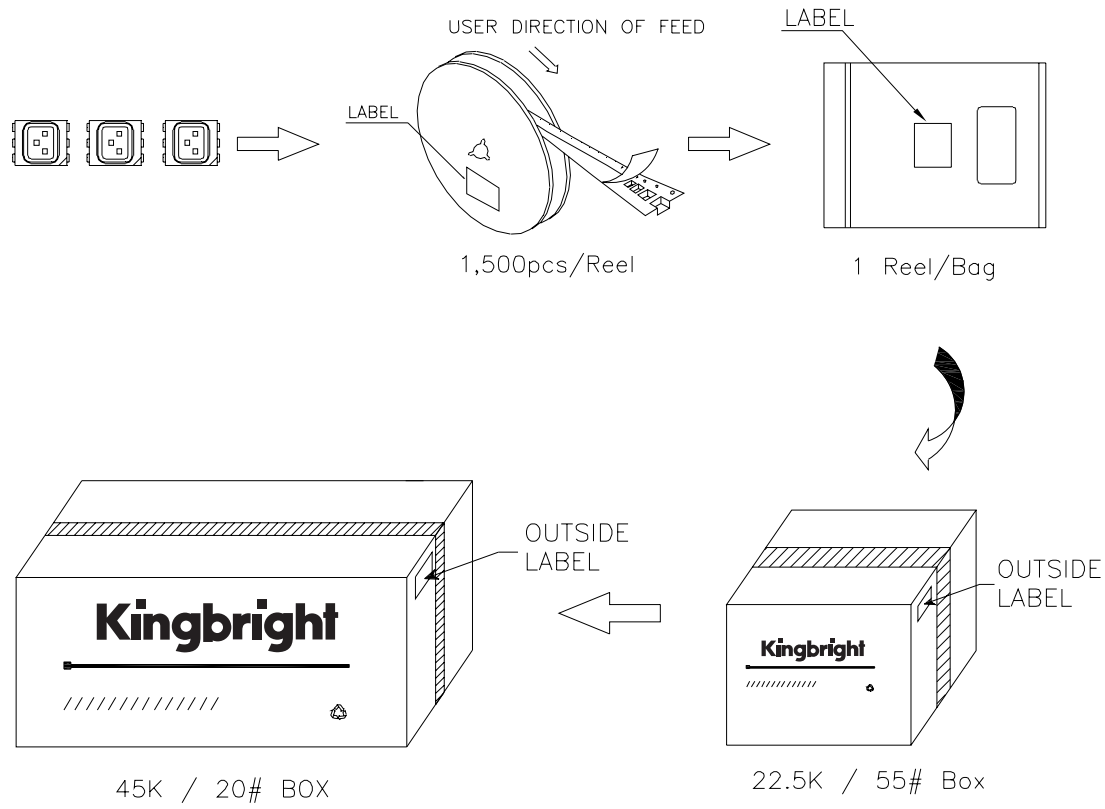


Tape Specifications (Units : mm)



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: XXXXXXXXXXXXXXXXXXXX	
MADE IN CHINA	RoHS Compliant