

## 3.0x2.5mm SURFACE MOUNT LED LAMP

Part Number: APB3025YSGC-F01

Yellow

Super Bright Green

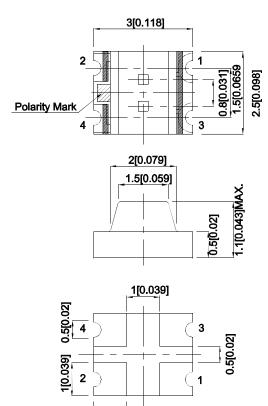
### **Features**

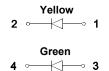
- 3.0mmx2.5mm SMD LED, 1.1mm thickness.
- Bi -color,low power consumption.
- Wide viewing angle.
- Ideal for backlight and indicator.
- Package: 2000pcs / reel.
- Moisture sensitivity level : level 3.
- RoHS compliant.

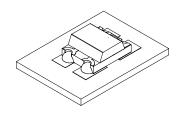
# **Descriptions**

- The Yellow source color devices are made with Gallium Arsenide Phosphide on Gallium Phosphide Yellow Light Emitting Diode.
- The Super Bright Green source color devices are made with Gallium Phosphide Green Light Emitting Diode.

# **Package Dimensions**









- 1. All dimensions are in millimeters (inches).
- 2. Tolerance is  $\pm 0.2 (0.008")$  unless otherwise noted.

1[0.039]

The specifications, characteristics and technical data described in the datasheet are subject to change without prior notice.
 The device has a single mounting surface. The device must be mounted according to the specifications.



SPEC NO: DSAE5919 **REV NO: V.11B** DATE: OCT/12/2015 PAGE: 1 OF 6 **APPROVED: Wynec CHECKED: Allen Liu** DRAWN: L.Q.Xie ERP: 1203000776

# **Selection Guide**

Part No.	Emitting Color (Material)	Lens Type	lv (mcd) [2] @ 20mA		Viewing Angle [1]
			Min.	Тур.	201/2
APB3025YSGC-F01	Yellow (GaAsP/GaP)	Water Clear	5	10	120°
	Super Bright Green (GaP)	Water Clear	8	15	

### Notes:

- 1. 01/2 is the angle from optical centerline where the luminous intensity is 1/2 of the optical peak value.
   2. Luminous intensity / luminous Flux: +/-15%.
   3. Luminous intensity value is traceable to the CIE127-2007 compliant national standards.

# Electrical / Optical Characteristics at TA=25°C

Symbol	Parameter	Emitting Color	Тур.	Max.	Units	Test Conditions	
λpeak	Peak Wavelength	Yellow Super Bright Green	590 565		nm	Ir=20mA	
λD [1]	Dominant Wavelength	Yellow Super Bright Green	588 568		nm	nm IF=20mA	
Δλ1/2	Spectral Line Half-width	Yellow Super Bright Green	35 30		nm	I==20mA	
С	Capacitance	Yellow Super Bright Green	20 15		pF	VF=0V;f=1MHz	
VF [2]	Forward Voltage	Yellow Super Bright Green	2.1 2.2	2.5 2.5	V	I==20mA	
lR	Reverse Current	Yellow Super Bright Green		10 10	uA	VR = 5V	

## Notes:

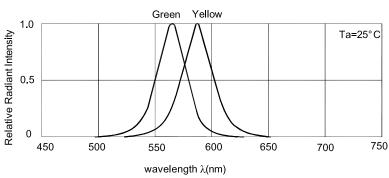
- 1. Wavelength: +/-1nm.
- 2. Forward Voltage: +/-0.1V.
- 3. Wavelength value is traceable to the CIE127-2007 compliant national standards.
- 4. Excess driving current and / or operating temperature higher than recommended conditions may result in severe light degradation or premature failure.

# Absolute Maximum Ratings at TA=25°C

Parameter	Yellow	Yellow Super Bright Green				
Power dissipation	75	62.5	mW			
DC Forward Current	30	25	mA			
Peak Forward Current [1]	140	140	mA			
Reverse Voltage		V				
Operating Temperature	-40°C To +85°C					
Storage Temperature	-40°C To +85°C					

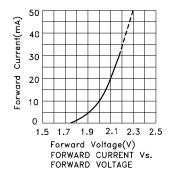
1. 1/10 Duty Cycle, 0.1ms Pulse Width.

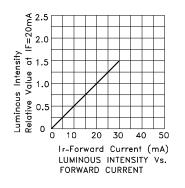
PAGE: 2 OF 6 SPEC NO: DSAE5919 **REV NO: V.11B** DATE: OCT/12/2015 APPROVED: Wynec **CHECKED: Allen Liu** ERP: 1203000776 DRAWN: L.Q.Xie

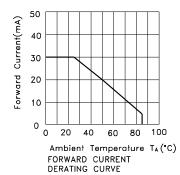


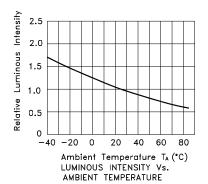
Relative Intensity Vs. Wavelength

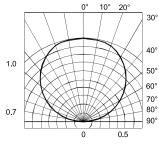
# APB3025YSGC-F01 Yellow









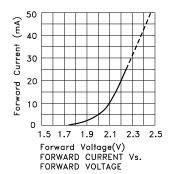


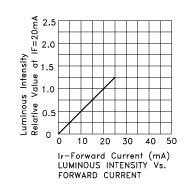
SPATIAL DISTRIBUTION

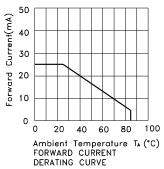
 SPEC NO: DSAE5919
 REV NO: V.11B
 DATE: OCT/12/2015
 PAGE: 3 OF 6

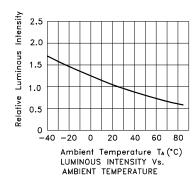
 APPROVED: Wynec
 CHECKED: Allen Liu
 DRAWN: L.Q.Xie
 ERP: 1203000776

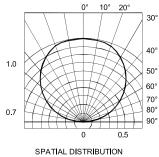
# **Super Bright Green**











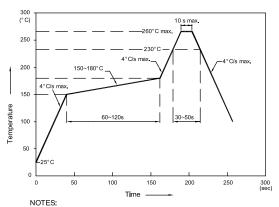
 SPEC NO: DSAE5919
 REV NO: V.11B
 DATE: OCT/12/2015
 PAGE: 4 OF 6

 APPROVED: Wynec
 CHECKED: Allen Liu
 DRAWN: L.Q.Xie
 ERP: 1203000776

## APB3025YSGC-F01

Reflow soldering is recommended and the soldering profile is shown below. Other soldering methods are not recommended as they might cause damage to the product.

Reflow Soldering Profile For Lead-free SMT Process.



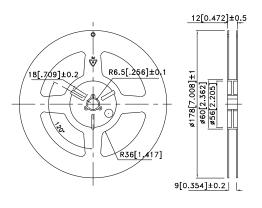
- 1.We recommend the reflow temperature 245°C(+/-5°C).The maximum soldering temperature should be limited to 260°C.
- 2.Don't cause stress to the epoxy resin while it is exposed
- to high temperature.
  3.Number of reflow process shall be 2 times or less.

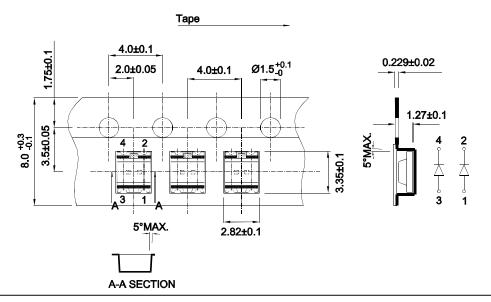
# Recommended Soldering Pattern (Units: mm; Tolerance: ± 0.1)

# 4.4

# Tape Dimensions (Units : mm)

# **Reel Dimension**

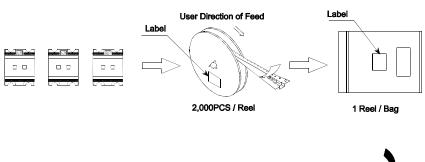


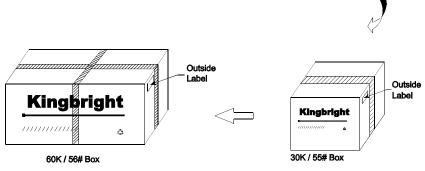


SPEC NO: DSAE5919 APPROVED: Wynec REV NO: V.11B CHECKED: Allen Liu DATE: OCT/12/2015 DRAWN: L.Q.Xie PAGE: 5 OF 6 ERP: 1203000776

## **PACKING & LABEL SPECIFICATIONS**

### APB3025YSGC-F01







# Terms and conditions for the usage of this document

- 1. The information included in this document reflects representative usage scenarios and is intended for technical reference only.
- 2. The part number, type, and specifications mentioned in this document are subject to future change and improvement without notice. Before production usage customer should refer to the latest datasheet for the updated specifications.
- 3. When using the products referenced in this document, please make sure the product is being operated within the environmental and electrical limits specified in the datasheet. If customer usage exceeds the specified limits, Kingbright will not be responsible for any subsequent issues.
- 4. The information in this document applies to typical usage in consumer electronics applications. If customer's application has special reliability requirements or have life-threatening liabilities, such as automotive or medical usage, please consult with Kingbright representative for further assistance.
- 5. The contents and information of this document may not be reproduced or re-transmitted without permission by Kingbright.
- 6. All design applications should refer to Kingbright application notes available at <a href="http://www.KingbrightUSA.com/ApplicationNotes">http://www.KingbrightUSA.com/ApplicationNotes</a>

 SPEC NO: DSAE5919
 REV NO: V.11B
 DATE: OCT/12/2015
 PAGE: 6 OF 6

 APPROVED: Wynec
 CHECKED: Allen Liu
 DRAWN: L.Q.Xie
 ERP: 1203000776