

### 3.2mmx1.6mm SMD CHIP LED LAMP

Part Number: KPT-3216SGC

Super Bright Green

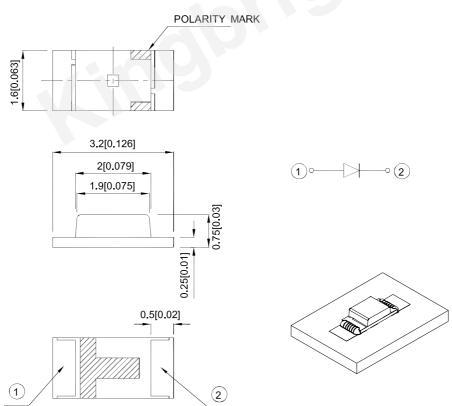
### **Features**

- 3.2mmx1.6mm SMT LED, 0.75mm thickness.
- Low power consumption.
- Wide viewing angle.
- Ideal for backlight and indicator.
- Package : 2000pcs / reel.
- Moisture sensitivity level : level 3.
- RoHS compliant.

### **Description**

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.
- 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: DSAA4647 **REV NO: V.16B DATE: JUN/12/2015** PAGE: 1 OF 5 CHECKED: Allen Liu APPROVED: WYNEC ERP: 1203001968 DRAWN: L.Q.Xie

### **Selection Guide**

Part No.	Dice	Lens Type	lv (mcd) [2] @ 20mA		Viewing Angle [1]
			Min.	Тур.	201/2
KPT-3216SGC	Super Bright Green (GaP)	Water Clear	5	12	120°

#### Notes:

- 1. θ1/2 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	Device	Тур.	Max.	Units	Test Conditions
λpeak	Peak Wavelength	Super Bright Green	565		nm	IF=20mA
λD [1]	Dominant Wavelength	Super Bright Green	568		nm	IF=20mA
Δλ1/2	Spectral Line Half-width	Super Bright Green	30		nm	IF=20mA
С	Capacitance	Super Bright Green	15		pF	VF=0V;f=1MHz
VF [2]	Forward Voltage	Super Bright Green	2.2	2.5	V	IF=20mA
lr	Reverse Current	Super Bright Green		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.
- 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

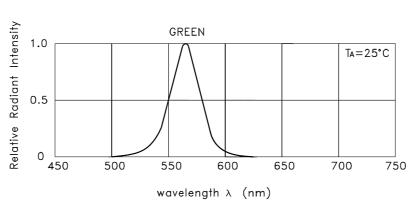
7.000.000 max.mam 1.00m.go at 17.1 20 0					
Parameter	Super Bright Green				
Power dissipation	62.5	mW			
DC Forward Current	25	mA			
Peak Forward Current [1]	140	mA			
Reverse Voltage	5	V			
Operating Temperature	-40°C To +85°C				
Storage Temperature	-40°C To +85°C				

### Note

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

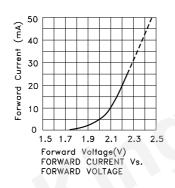
SPEC NO: DSAA4647 REV NO: V.16B DATE: JUN/12/2015 PAGE: 2 OF 5

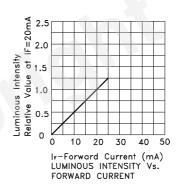
APPROVED: WYNEC CHECKED: Allen Liu DRAWN: L.Q.Xie ERP: 1203001968

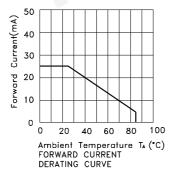


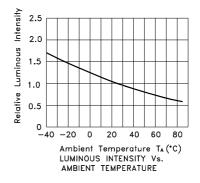
RELATIVE INTENSITY Vs. WAVELENGTH

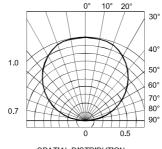
Super Bright Green KPT-3216SGC











SPATIAL DISTRIBUTION

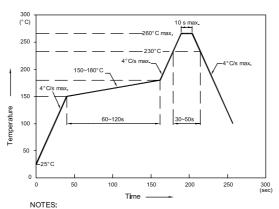
SPEC NO: DSAA4647 REV NO: V.16B DA
APPROVED: WYNEC CHECKED: Allen Liu DF

DATE: JUN/12/2015 PAGE: 3 OF 5
DRAWN: L.Q.Xie ERP: 1203001968

### **KPT-3216SGC**

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.

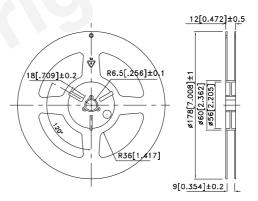


- 1.We recommend the reflow temperature 245°C(+/-5°C).The maximum soldering temperature should be limited to 260°C.
- 2.Don't cause stress to the epoxy resin while it is exposed
- to high temperature.
  3.Number of reflow process shall be 2 times or less.

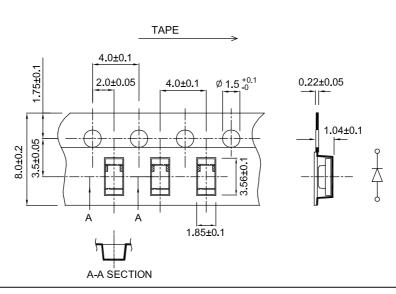
### Recommended Soldering Pattern (Units: mm; Tolerance: ± 0.1)

# 1.75 2.0 1.75

### **Reel Dimension**



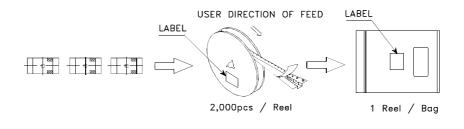
Tape Dimensions (Units: mm)

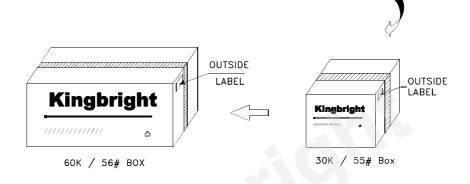


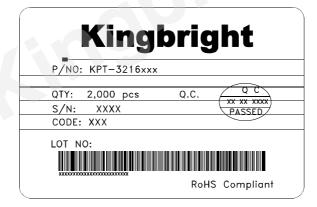
SPEC NO: DSAA4647 APPROVED: WYNEC REV NO: V.16B CHECKED: Allen Liu DATE: JUN/12/2015 DRAWN: L.Q.Xie PAGE: 4 OF 5 ERP: 1203001968

### **PACKING & LABEL SPECIFICATIONS**

### **KPT-3216SGC**







### 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 http://www.kingbright.com/application\_notes

 SPEC NO: DSAA4647
 REV NO: V.16B
 DATE: JUN/12/2015
 PAGE: 5 OF 5

 APPROVED: WYNEC
 CHECKED: Allen Liu
 DRAWN: L.Q.Xie
 ERP: 1203001968