

#### 2.0x1.25mm SMD CHIP LED LAMP

Part Number: APT2012SGC Super Bright Green

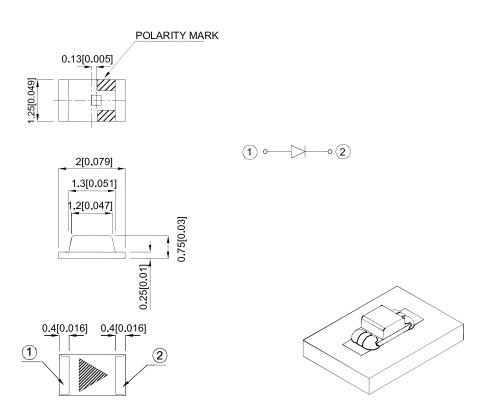
#### **Features**

- 2.0mm x1.25mm 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  $\pm 0.1(0.004")$  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: DSAA8210 **REV NO: V.15B DATE: MAY/06/2015** PAGE: 1 OF 5 APPROVED: WYNEC **CHECKED: Allen Liu** DRAWN: Q.M.Chen ERP: 1203001868

#### **Selection Guide**

Part No.	Dice	Lens Type	lv (mcd) [2] @ 20mA		Viewing Angle [1]
			Min.	Тур.	201/2
APT2012SGC	T2012SGC Super Bright Green (GaP)		Clear 5		120°

#### 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	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	V <sub>R</sub> =5V

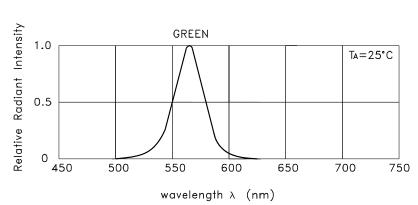
- Notes: 1. Wavelength: + / -1nm. 2. Forward Voltage: + / -0.1V.
- 3. Wavelength value is traceable to the CIE127-2007 compliant national standards.
- 4. Excess driving current and / or operating temperature higher than recommended conditions may result in severe light degradation or premature failure.

### Absolute Maximum Ratings at TA=25°C

Parameter	Super Bright Green Un		
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		

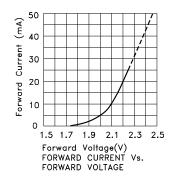
1. 1 / 10 Duty Cycle, 0.1ms Pulse Width.

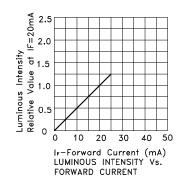
SPEC NO: DSAA8210 **REV NO: V.15B DATE: MAY/06/2015** PAGE: 2 OF 5 APPROVED: WYNEC **CHECKED: Allen Liu** DRAWN: Q.M.Chen ERP: 1203001868

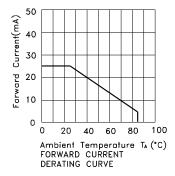


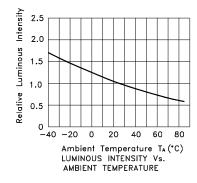
RELATIVE INTENSITY Vs. WAVELENGTH

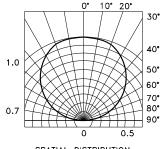
#### Super Bright Green APT2012SGC











SPATIAL DISTRIBUTION

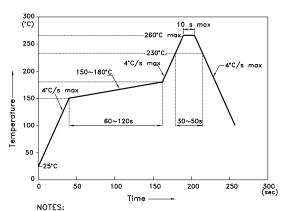
 SPEC NO: DSAA8210
 REV NO: V.15B
 DATE: MAY/06/2015
 PAGE: 3 OF 5

 APPROVED: WYNEC
 CHECKED: Allen Liu
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 ERP: 1203001868

#### APT2012SGC

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.



- 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.

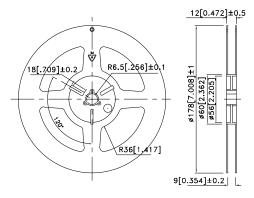
  3.Number of reflow process shall be 2 times or less.

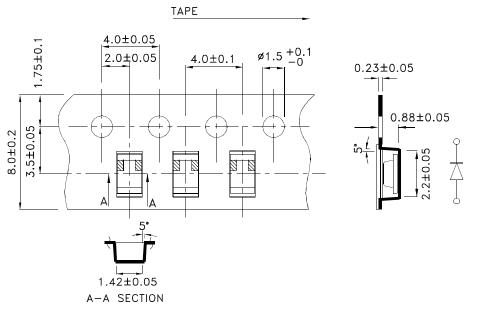
#### **Recommended Soldering Pattern** (Units: mm; Tolerance: ± 0.1)



#### **Tape Dimensions** (Units : mm)

### **Reel Dimension**





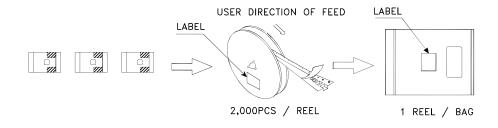
SPEC NO: DSAA8210 APPROVED: WYNEC

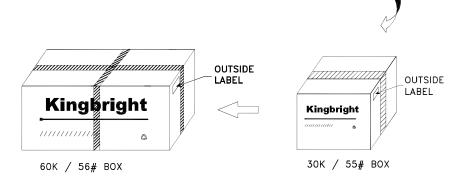
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PAGE: 4 OF 5 ERP: 1203001868

#### **PACKING & LABEL SPECIFICATIONS**

#### APT2012SGC







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 SPEC NO: DSAA8210
 REV NO: V.15B
 DATE: MAY/06/2015
 PAGE: 5 OF 5

 APPROVED: WYNEC
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