

## 3.2x1.0mm RIGHT ANGLE BI-COLOR SMD **CHIP LED LAMP**

Part Number: APBA3210SURKCGKC-F01

Hyper Red Green

### **Features**

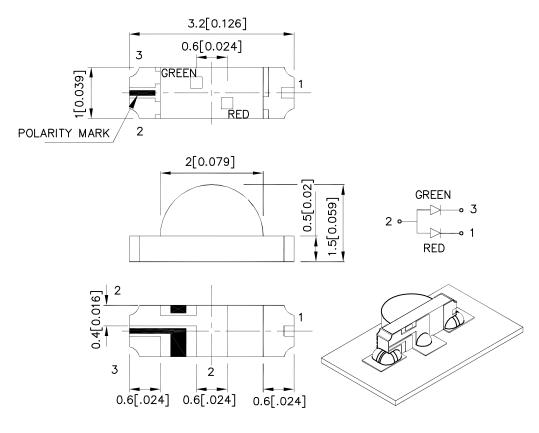
- •3.2mmx1.0mm right angle SMT LED,1.5mm thickness.
- •Low power consumption.
- Wide viewing angle.
- ●Package: 2000pcs / reel.
- •Moisture sensitivity level : level 3.
- ●RoHs compliant.

## Description

The Hyper Red source color devices are made with Al-GaInP on GaAs substrate Light Emitting Diode.

The Green source color devices are made with AlGaInP on GaAs substrate Light Emitting Diode.

## **Package Dimensions**



### Notes:

- All dimensions are in millimeters (inches).
   Tolerance is ±0.1(0.004") 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





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**REV NO: V.4 CHECKED: Allen Liu**  **DATE: MAR/30/2009** DRAWN: X.J.Guo

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## **Selection Guide**

Part No.	Dice	Lens Type	lv (mcd) [2] @ 20mA		Viewing Angle [1]
			Min.	Тур.	201/2
APBA3210SURKCGKC-	Hyper Red (AlGaInP)	WATER CLEAR	110	200	120°
F01	Green (AlGaInP)	WATER CLEAR	18	50	

- 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 TA=25°C

Symbol	Parameter	Device	Тур.	Max.	Units	Test Conditions
λpeak	Peak Wavelength	Hyper Red Green	650 574		nm	IF=20mA
λD [1]	Dominant Wavelength	Hyper Red Green	630 570		nm	I=20mA
Δλ1/2	Spectral Line Half-width	Hyper Red Green	28 20		nm	I=20mA
С	Capacitance	Hyper Red Green	35 15		pF	VF=0V;f=1MHz
VF [2]	Forward Voltage	Hyper Red Green	1.95 2.1	2.5 2.5	V	I=20mA
lR	Reverse Current	Hyper Red Green		10 10	uA	V <sub>R</sub> = 5V

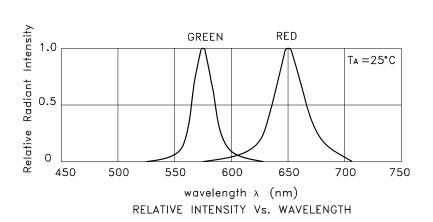
- 1.Wavelength: +/-1nm. 2. Forward Voltage: +/-0.1V.

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

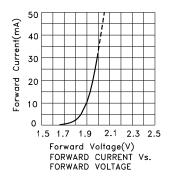
Parameter Hyper Red Green Unit							
Hyper Red	Green	Units					
75	75	mW					
30	30	mA					
185	150	mA					
5	V						
-40°C To +85°C							
-40°C To +85°C							
	30 185	75 75 30 30 30 185 150 5 -40°C To +85°C					

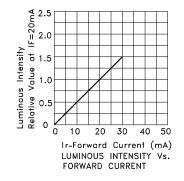
1. 1/10 Duty Cycle, 0.1ms Pulse Width.

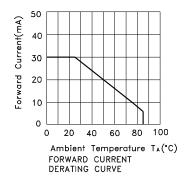
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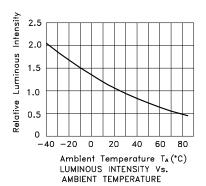


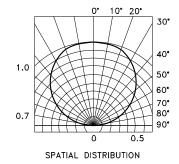
## APBA3210SURKCGKC-F01 Hyper Red







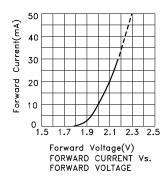


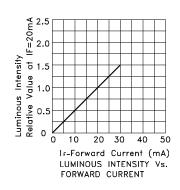


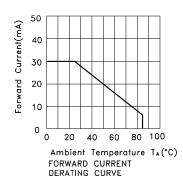
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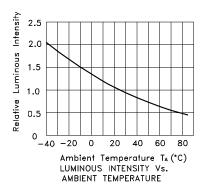
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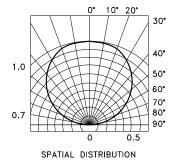
## Green











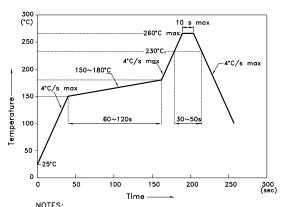
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### APBA3210SURKCGKC-F01

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.



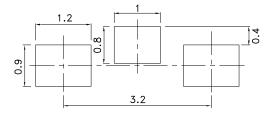
- NOTES:

  1.We recommend the reflow temperature 245°C(+/-5°C). The maximum soldering temperature should be limited to 260°C.

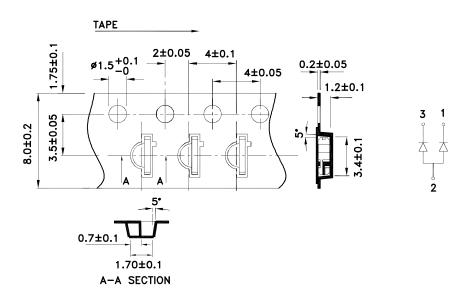
  2.Don't cause stress to the epoxy resin while it is exposed to high temperature. to high temperature.

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

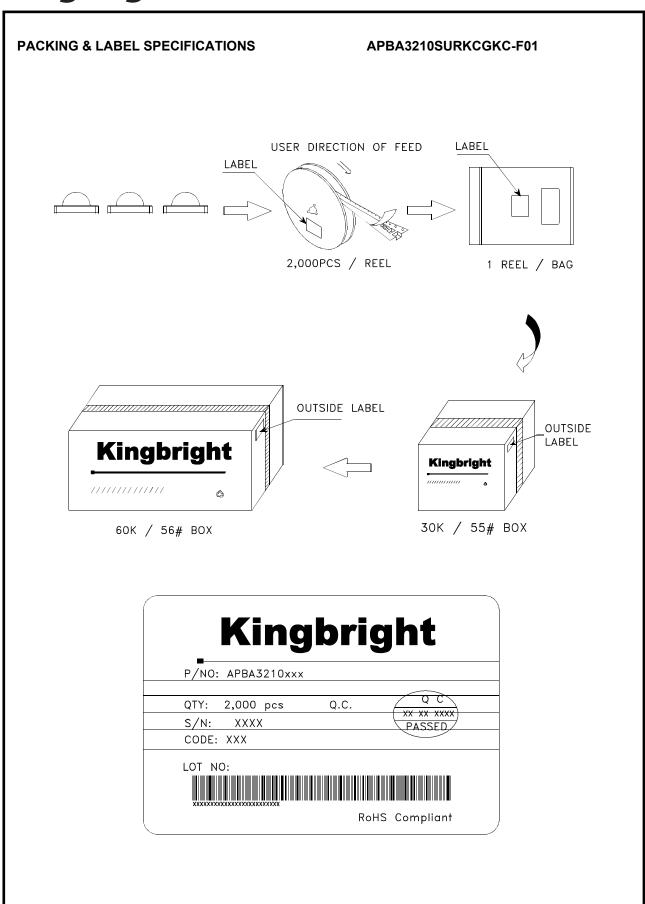
## **Recommended Soldering Pattern** (Units: mm; Tolerance: ± 0.1)



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



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