

2.0x1.25mm BI-COLOR SMD CHIP LED LAMP

Part Number: APB2012SYKCGKC

Super Bright Yellow

Features

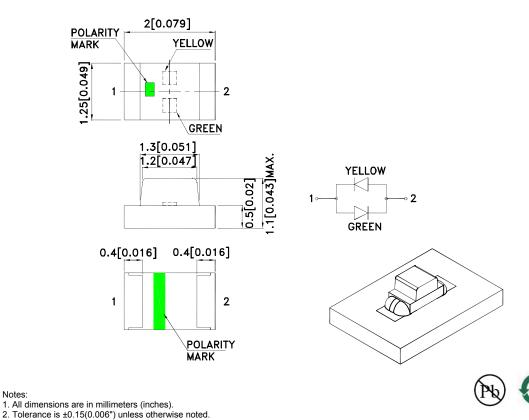
- 2.0mmx1.25mm SMT LED, 1.1mm thickness.
- Bi -color,Low power consumption.
- Wide viewing angle.
- Ideal for backlight and indicator.
- Package : 2000pcs / reel.
- Moisture sensitivity level : level 3.
- RoHS compliant.

Description

The Super Bright Yellow device is made with AlGaInP (on GaAs substrate) light emitting diode chip.

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

Package Dimensions



SPEC NO: DSAM3693 APPROVED: WYNEC

Notes:

REV NO: V.2B CHECKED: Allen Liu

3. The specifications, characteristics and technical data described in the datasheet are subject to change without prior notice.

4. The device has a single mounting surface. The device must be mounted according to the specifications.

DATE: APR/01/2013 DRAWN: Q.M.Chen

PAGE: 1 OF 6 ERP: 1203013155

Selection Guide

Part No.	Dice	Lens Type	lv (mcd) [2] @ 20mA		Viewing Angle [1]
			Min.	Тур.	201/2
APB2012SYKCGKC	Super Bright Yellow (AlGaInP)	Water Clear	80	120	150°
	Green (AlGaInP)	Water Clear	20	50	

- Notes: 1. θ 1/2 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 Yellow Green	590 574		nm	IF=20mA
λD [1]	Dominant Wavelength	Super Bright Yellow Green	590 570		nm	Ir=20mA
Δλ1/2	Spectral Line Half-width	Super Bright Yellow Green	20 20		nm	Ir=20mA
С	Capacitance	Super Bright Yellow Green	20 15		pF	V _F =0V;f=1MHz
VF [2]	Forward Voltage	Super Bright Yellow Green	2 2.1	2.5 2.5	V	Ir=20mA

Notes:

- 1.Wavelength: +/-1nm.
- 2. Forward Voltage: +/-0.1V.
- 3. Wavelength value is traceable to the CIE127-2007 compliant national standards.

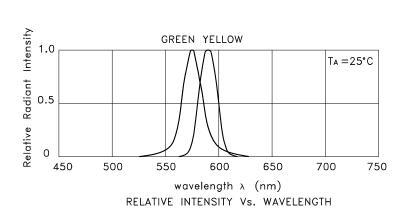
Absolute Maximum Ratings at TA=25°C

Parameter	Super Bright Yellow	Green	Units		
Power dissipation	75	75	mW		
DC Forward Current	30	30	mA		
Peak Forward Current [1]	175	150	mA		
Operating Temperature	-40°C To +85°C				
Storage Temperature	-40°C To +85°C				

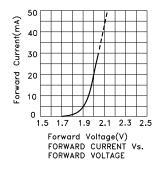
Note:

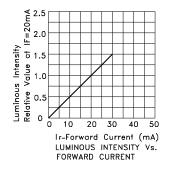
1. 1/10 Duty Cycle, 0.1ms Pulse Width.

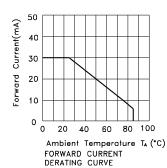
SPEC NO: DSAM3693 **REV NO: V.2B** DATE: APR/01/2013 PAGE: 2 OF 6 APPROVED: WYNEC CHECKED: Allen Liu DRAWN: Q.M.Chen ERP: 1203013155

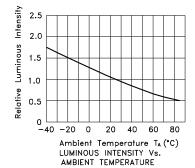


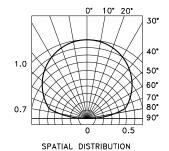
APB2012SYKCGKC Super Bright Yellow







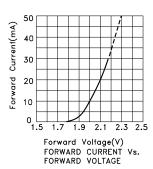


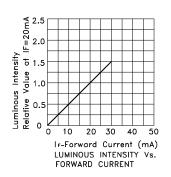


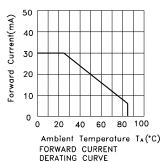
SPEC NO: DSAM3693 APPROVED: WYNEC REV NO: V.2B CHECKED: Allen Liu DATE: APR/01/2013 DRAWN: Q.M.Chen PAGE: 3 OF 6

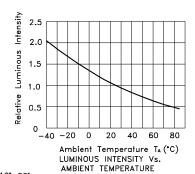
ERP: 1203013155

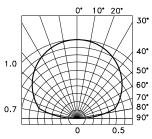












SPATIAL DISTRIBUTION

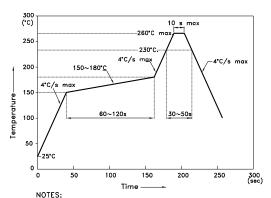
SPEC NO: DSAM3693 REV NO: V.2B
APPROVED: WYNEC CHECKED: Allen Liu

DATE: APR/01/2013 DRAWN: Q.M.Chen PAGE: 4 OF 6 ERP: 1203013155

APB2012SYKCGKC

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:

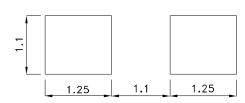
1.We recommend the reflow temperature 245°C(+/-5°C). The maximum soldering temperature should be limited to 260°C.

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

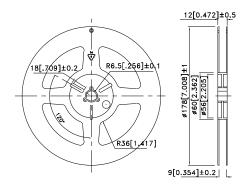
3.Number of reflow process shall be 2 times or less.

Recommended Soldering Pattern

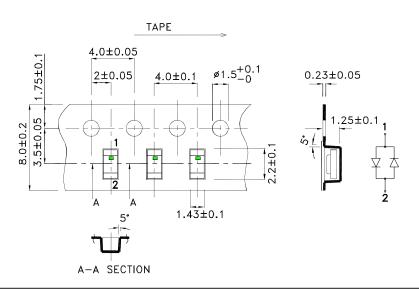
(Units : mm; Tolerance: ± 0.1)



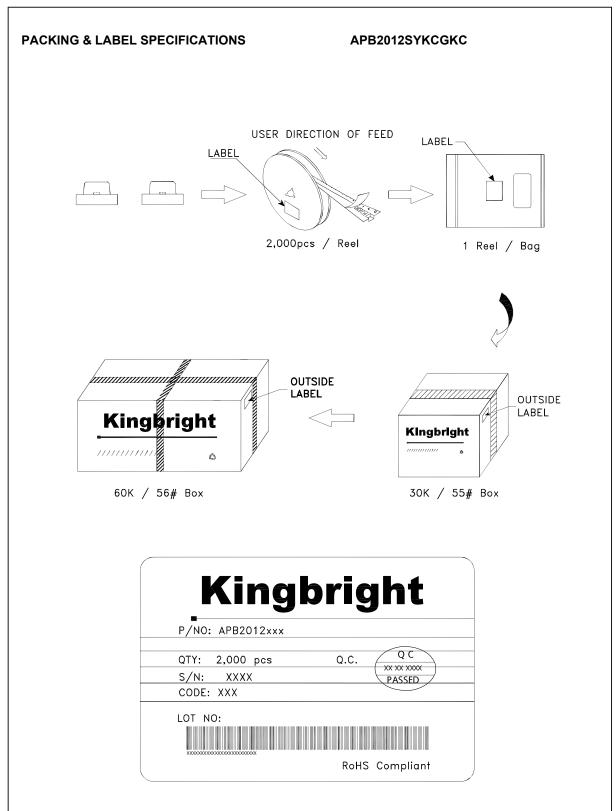
Reel Dimension



Tape Dimensions (Units: mm)



SPEC NO: DSAM3693 APPROVED: WYNEC REV NO: V.2B CHECKED: Allen Liu DATE: APR/01/2013 DRAWN: Q.M.Chen PAGE: 5 OF 6 ERP: 1203013155



http://www.KingbrightUSA.com/ApplicationNotes

All design applications should refer to Kingbright application notes available at

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SPEC NO: DSAM3693

REV NO: V.2B CHECKED: Allen Liu DATE: APR/01/2013 DRAWN: Q.M.Chen PAGE: 6 OF 6 ERP: 1203013155