imall

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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ATTENTION OBSERVE PRECAUTIONS FOR HANDLING ELECTROSTATIC DISCHARGE SENSITIVE DEVICES

Features

- 2.0mmx1.25mm SMD LED, 0.45mm max. thickness.
- Bi -color, low power consumption.
- Wide viewing angle.
- Ideal for backlight and indicator.
- Package : 2000pcs / reel.
- Moisture sensitivity level : level 3.
- Low current IF=2mA operating.
- RoHS compliant.

2.0x1.25mm SMD CHIP LED LAMP

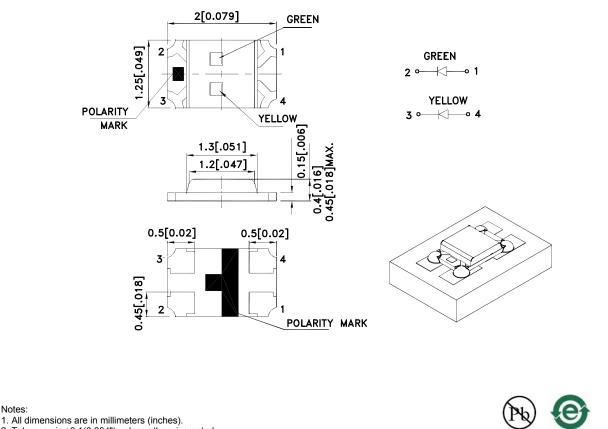
Part Number: APHBM2012LZGKSYKC

Green Super Bright Yellow

Descriptions

- The Green source color devices are made with InGaN on Sapphire Light Emitting Diode.
- The Super Bright Yellow device is made with AlGaInP (on GaAs substrate) light emitting diode chip.
- Electrostatic discharge and power surge could damage the LEDs.
- It is recommended to use a wrist band or antielectrostatic glove when handling the LEDs.
- All devices, equipments and machineries must be electrically grounded.

Package Dimensions



2. Tolerance is ±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.

Notes:

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Selection Guide lv (mcd) [2] Viewing @ 2mA Angle [1] Part No. **Emitting Color (Material)** Lens Type Min. 201/2 Тур. Green (InGaN) 50 90 120° APHBM2012LZGKSYKC Water Clear Super Bright Yellow (AlGaInP) 10 6

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.

Symbol	Parameter	Emitting Color	Min.	Тур.	Max.	Units	Test Conditions
λpeak	Peak Wavelength	Green Super Bright Yellow		515 590		nm	I⊧=2mA
λD [1]	Dominant Wavelength	Green Super Bright Yellow		525 590		nm	I⊧=2mA
Δλ1/2	Spectral Line Half-width	Green Super Bright Yellow		35 20		nm	IF=2mA
С	Capacitance	Green Super Bright Yellow		45 20		pF	VF=0V;f=1MHz
Vf [2]	Forward Voltage	Green Super Bright Yellow	2.2 1.5	2.65 1.85	3.1 2.1	V	I⊧=2mA
lr	Reverse Current	Green Super Bright Yellow			50 10	uA	VR = 5V

Electrical / Optical Characteristics at TA=25°C

Notes:

1.Wavelength: +/-1nm.

2. Forward Voltage: +/-0.1V.

3. Wavelength value is traceable to the CIE127-2007 compliant national standards.

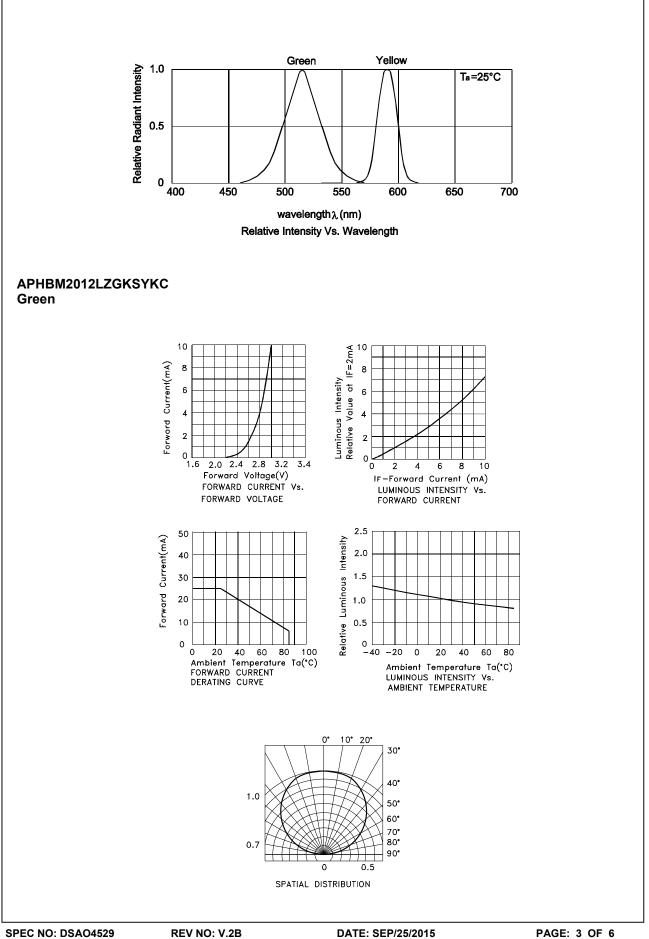
4.Excess driving current and/or operating temperature higher than recommended conditions may result in severe light degradation or premature failure.

Absolute Maximum Ratings at TA=25°C

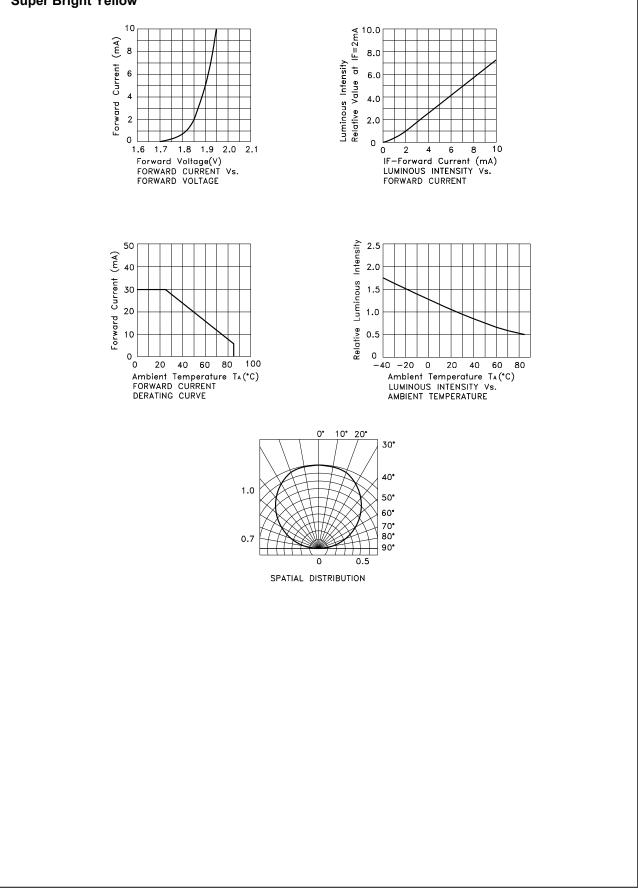
Parameter	Green	Super Bright Yellow	Units		
Power dissipation	77.5	63	mW		
DC Forward Current	25	30	mA		
Peak Forward Current [1]	150	175	mA		
Electrostatic Discharge Threshold (HBM)	450	3000	V		
Reverse Voltage		V			
Operating Temperature	-40°C To +85°C				
Storage Temperature	-40°C To +85°C				

Note:

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



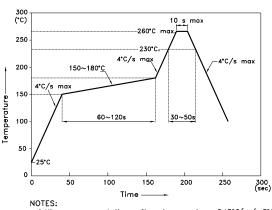
Super Bright Yellow



APHBM2012LZGKSYKC

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.

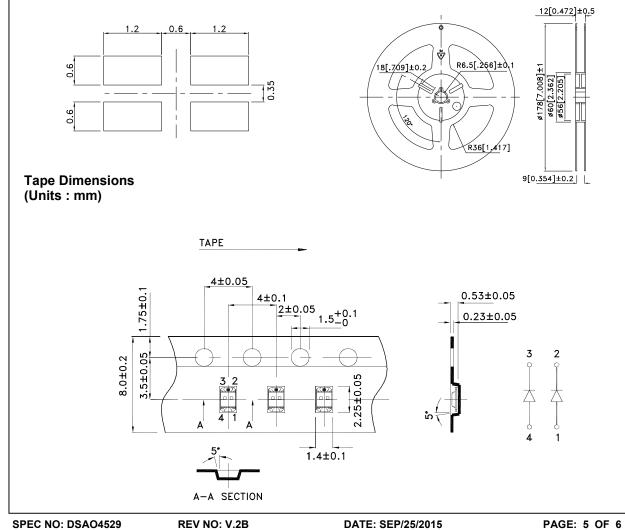
Reflow Soldering Profile For Lead-free SMT Process.



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 bit temperature to high temperature. 3.Number of reflow process shall be 2 times or less.



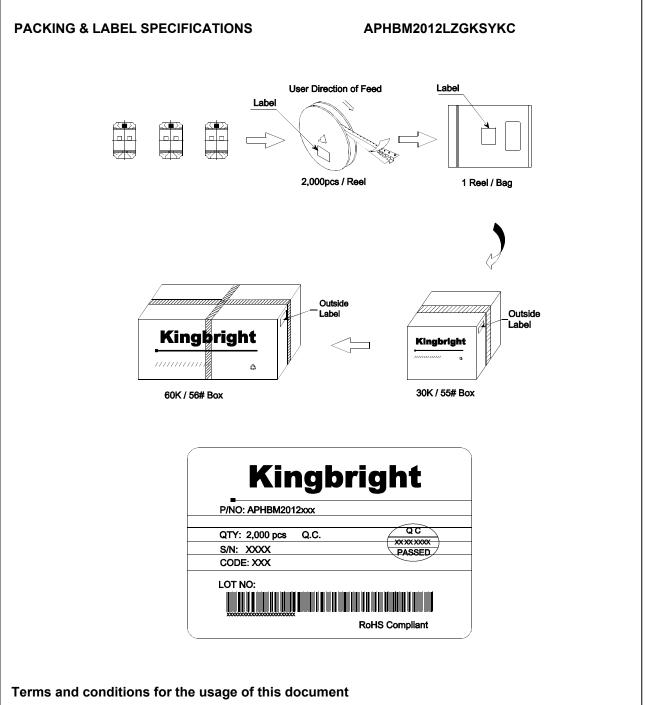
Reel Dimension



CHECKED: Allen Liu

DRAWN: M.Liu

ERP: 1203015152



- 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.
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