

Part Number: APHBM2012LCGKSYKC

Green  
Super Bright Yellow

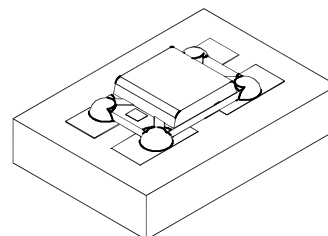
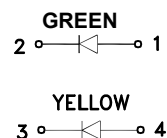
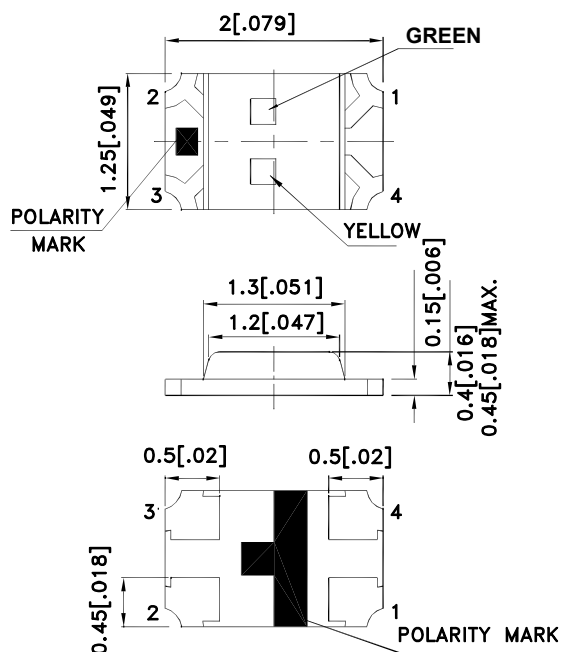
### Features

- 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.

### Descriptions

- The Green source color devices are made with AlGaInP on GaAs substrate Light Emitting Diode.
- The Super Bright Yellow device is made with AlGaInP (on GaAs substrate) light emitting diode chip.

### Package Dimensions



#### Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is  $\pm 0.1$  (0.004") unless otherwise noted.
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.



## Selection Guide

| Part No.          | Emitting Color (Material)     | Lens Type   | Iv (mcd) [2]<br>@ 2mA |      | Viewing<br>Angle [1] |
|-------------------|-------------------------------|-------------|-----------------------|------|----------------------|
|                   |                               |             | Min.                  | Typ. | 2θ1/2                |
| APHBM2012LCGKSYKC | Green (AlGaInP)               | Water Clear | 1.2                   | 2    | 120°                 |
|                   | Super Bright Yellow (AlGaInP) |             | 6                     | 10   |                      |

### 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                | Emitting Color               | Min.       | Typ.        | Max.       | Units | Test Conditions |
|--------|--------------------------|------------------------------|------------|-------------|------------|-------|-----------------|
| λpeak  | Peak Wavelength          | Green<br>Super Bright Yellow |            | 574<br>590  |            | nm    | IF=2mA          |
| λD [1] | Dominant Wavelength      | Green<br>Super Bright Yellow |            | 570<br>590  |            | nm    | IF=2mA          |
| Δλ1/2  | Spectral Line Half-width | Green<br>Super Bright Yellow |            | 20<br>20    |            | nm    | IF=2mA          |
| C      | Capacitance              | Green<br>Super Bright Yellow |            | 15<br>20    |            | pF    | VF=0V;f=1MHz    |
| VF [2] | Forward Voltage          | Green<br>Super Bright Yellow | 1.5<br>1.5 | 1.9<br>1.85 | 2.1<br>2.1 | V     | IF=2mA          |
| IR     | Reverse Current          | Green<br>Super Bright Yellow |            |             | 10<br>10   | uA    | VR = 5V         |

### Notes:

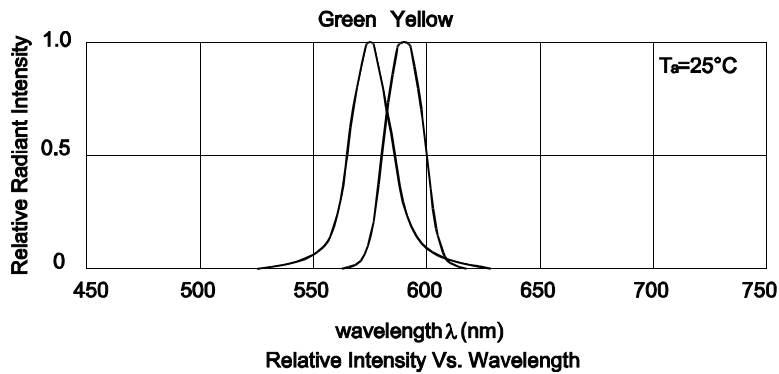
1. Wavelength: +/-1nm.
2. Forward Voltage: +/-0.1V.
3. Wavelength value is traceable to the CIE127-2007 compliant national standards.
4. Excess driving current and / or operating temperature higher than recommended conditions may result in severe light degradation or premature failure.

## Absolute Maximum Ratings at TA=25°C

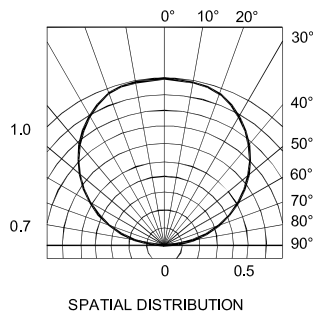
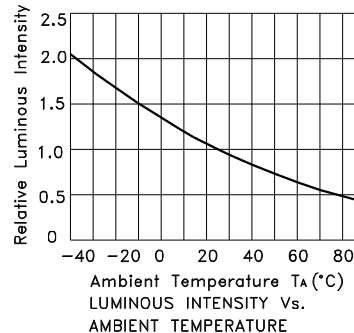
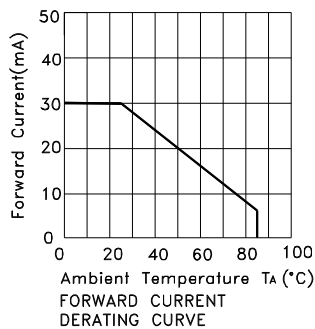
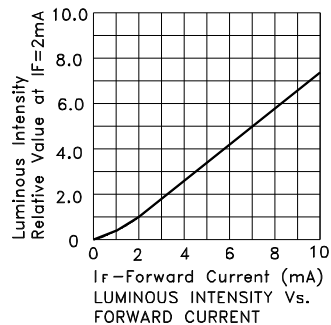
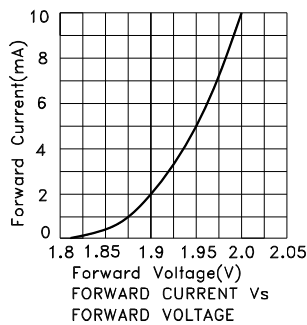
| Parameter                | Green          | Super Bright Yellow | Units |
|--------------------------|----------------|---------------------|-------|
| Power dissipation        | 63             | 63                  | mW    |
| DC Forward Current       | 30             | 30                  | mA    |
| Peak Forward Current [1] | 150            | 175                 | mA    |
| Reverse Voltage          | 5              |                     | V     |
| Operating Temperature    | -40°C To +85°C |                     |       |
| Storage Temperature      | -40°C To +85°C |                     |       |

### Note:

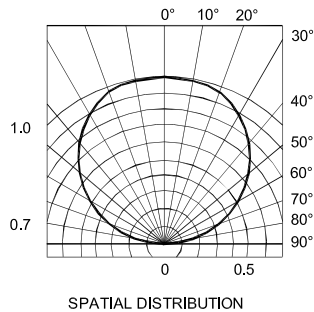
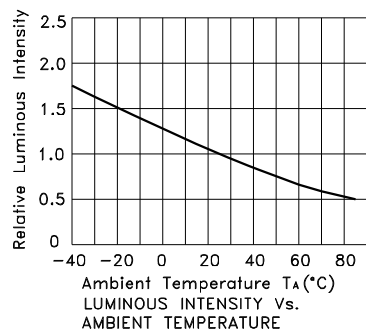
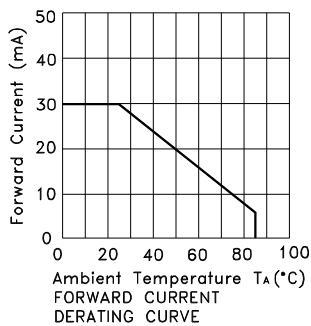
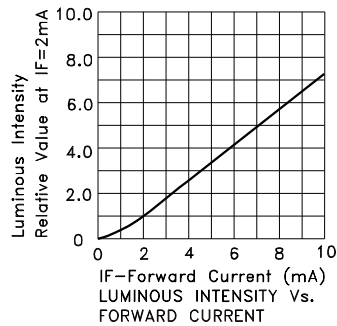
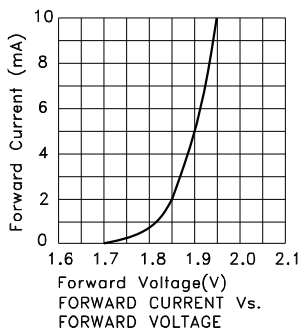
1. 1/10 Duty Cycle, 0.1ms Pulse Width.



APHBM2012LCGKSYKC  
Green



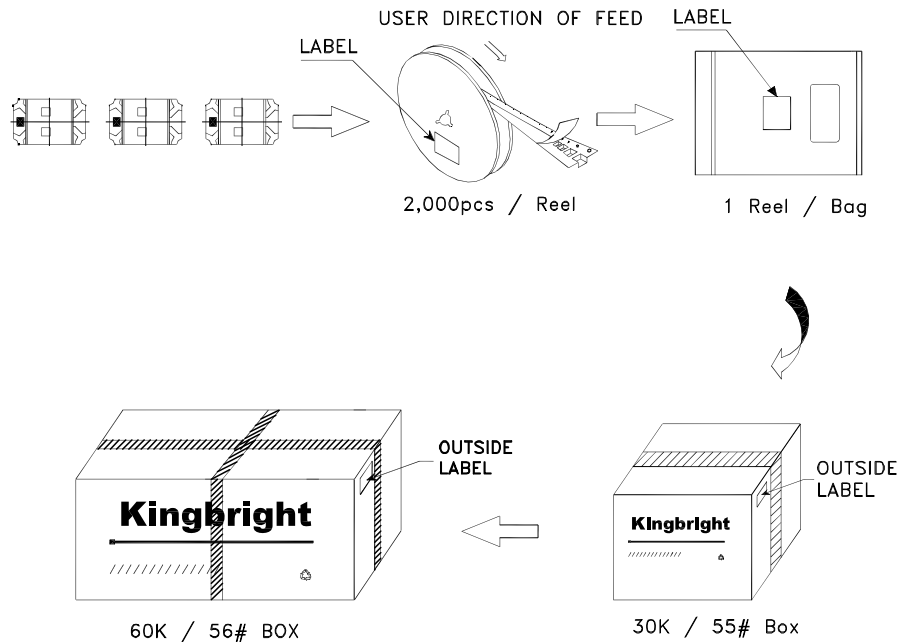
## Super Bright Yellow





## PACKING & LABEL SPECIFICATIONS

APHBM2012LCGKSYKC



|                                                                                      |                                                                                                                    |
|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|
| <b>Kingbright</b>                                                                    |                                                                                                                    |
| P/NO: APHBM2012xxx                                                                   |                                                                                                                    |
| QTY: 2,000 pcs                                                                       | Q.C. <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">Q C<br/>XX XX XXXX<br/>PASSED</span> |
| S/N: XXXX                                                                            |                                                                                                                    |
| CODE: XXX                                                                            |                                                                                                                    |
| LOT NO:                                                                              |                                                                                                                    |
|  |                                                                                                                    |
| RoHS Compliant                                                                       |                                                                                                                    |

### 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.KingbrightUSA.com/ApplicationNotes>



**Стандарт  
Электрон  
Связь**

Мы молодая и активно развивающаяся компания в области поставок электронных компонентов. Мы поставляем электронные компоненты отечественного и импортного производства напрямую от производителей и с крупнейших складов мира.

Благодаря сотрудничеству с мировыми поставщиками мы осуществляем комплексные и плановые поставки широчайшего спектра электронных компонентов.

Собственная эффективная логистика и склад в обеспечивает надежную поставку продукции в точно указанные сроки по всей России.

Мы осуществляем техническую поддержку нашим клиентам и предпродажную проверку качества продукции. На все поставляемые продукты мы предоставляем гарантию .

Осуществляем поставки продукции под контролем ВП МО РФ на предприятия военно-промышленного комплекса России , а также работаем в рамках 275 ФЗ с открытием отдельных счетов в уполномоченном банке. Система менеджмента качества компании соответствует требованиям ГОСТ ISO 9001.

Минимальные сроки поставки, гибкие цены, неограниченный ассортимент и индивидуальный подход к клиентам являются основой для выстраивания долгосрочного и эффективного сотрудничества с предприятиями радиоэлектронной промышленности, предприятиями ВПК и научно-исследовательскими институтами России.

С нами вы становитесь еще успешнее!

**Наши контакты:**

**Телефон:** +7 812 627 14 35

**Электронная почта:** [sales@st-electron.ru](mailto:sales@st-electron.ru)

**Адрес:** 198099, Санкт-Петербург,  
Промышленная ул, дом № 19, литера Н,  
помещение 100-Н Офис 331