

Part Number: APB2012SYKCGKC

Super Bright Yellow  
Green

### Features

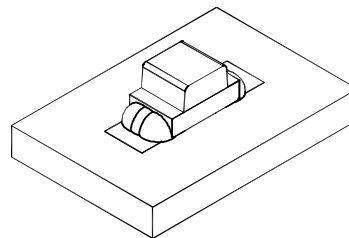
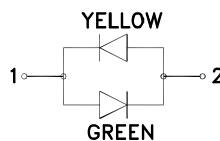
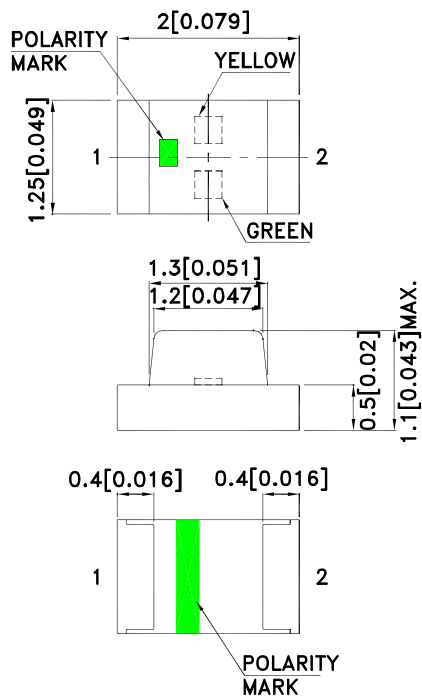
- 2.0mmx1.25mm SMT LED, 1.1mm thickness.
- Bi -color, Low power consumption.
- Wide viewing angle.
- Ideal for backlight and indicator.
- Package : 2000pcs / reel.
- Moisture sensitivity level : level 3.
- RoHS compliant.

### 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



#### Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is  $\pm 0.15$  (0.006") 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.       | Dice                          | Lens Type   | Iv (mcd) [2]<br>@ 20mA |      | Viewing<br>Angle [1] |
|----------------|-------------------------------|-------------|------------------------|------|----------------------|
|                |                               |             | Min.                   | Typ. | 2θ1/2                |
| APB2012SYKCGKC | Super Bright Yellow (AlGaInP) | Water Clear | 80                     | 120  | 150°                 |
|                | Green (AlGaInP)               |             | 20                     | 50   |                      |

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                | Device                       | Typ.       | Max.       | Units | Test Conditions           |
|--------------------|--------------------------|------------------------------|------------|------------|-------|---------------------------|
| λpeak              | Peak Wavelength          | Super Bright Yellow<br>Green | 590<br>574 |            | nm    | I <sub>F</sub> =20mA      |
| λD [1]             | Dominant Wavelength      | Super Bright Yellow<br>Green | 590<br>570 |            | nm    | I <sub>F</sub> =20mA      |
| Δλ1/2              | Spectral Line Half-width | Super Bright Yellow<br>Green | 20<br>20   |            | nm    | I <sub>F</sub> =20mA      |
| C                  | Capacitance              | Super Bright Yellow<br>Green | 20<br>15   |            | pF    | V <sub>F</sub> =0V;f=1MHz |
| V <sub>F</sub> [2] | Forward Voltage          | Super Bright Yellow<br>Green | 2<br>2.1   | 2.5<br>2.5 | V     | I <sub>F</sub> =20mA      |

Notes:

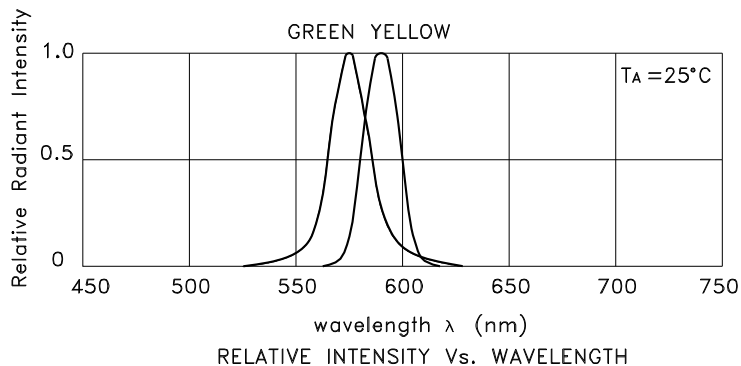
1. Wavelength: +/-1nm.
2. Forward Voltage: +/-0.1V.
3. Wavelength value is traceable to the CIE127-2007 compliant national standards.

## Absolute Maximum Ratings at TA=25°C

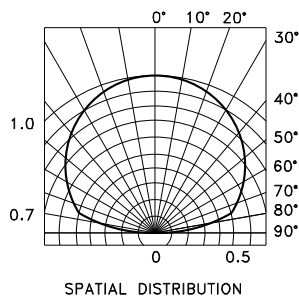
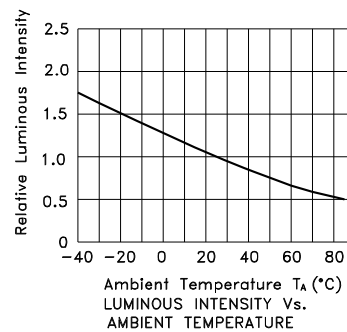
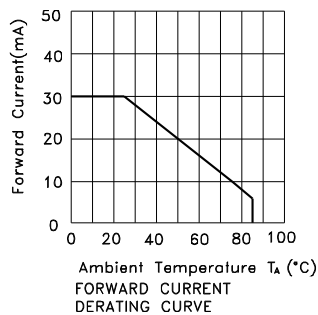
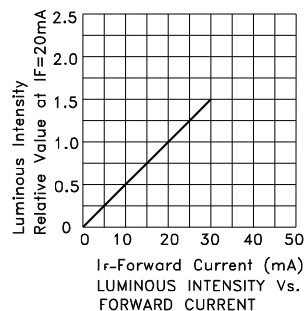
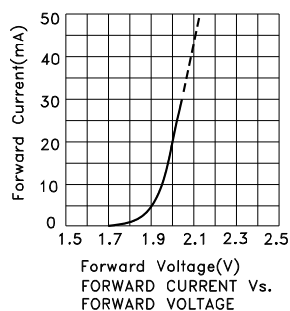
| Parameter                | Super Bright Yellow | Green | Units |
|--------------------------|---------------------|-------|-------|
| Power dissipation        | 75                  | 75    | mW    |
| DC Forward Current       | 30                  | 30    | mA    |
| Peak Forward Current [1] | 175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

Note:

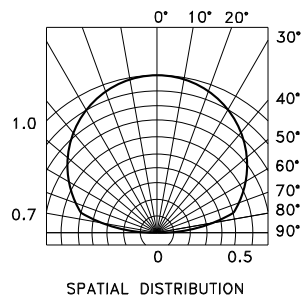
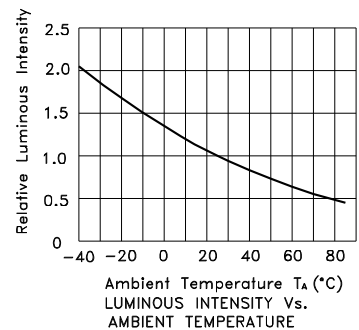
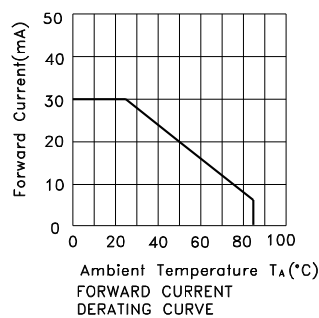
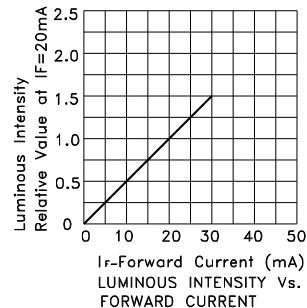
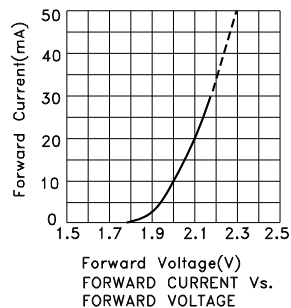
1. 1/10 Duty Cycle, 0.1ms Pulse Width.



## APB2012SYKCGKC Super Bright Yellow



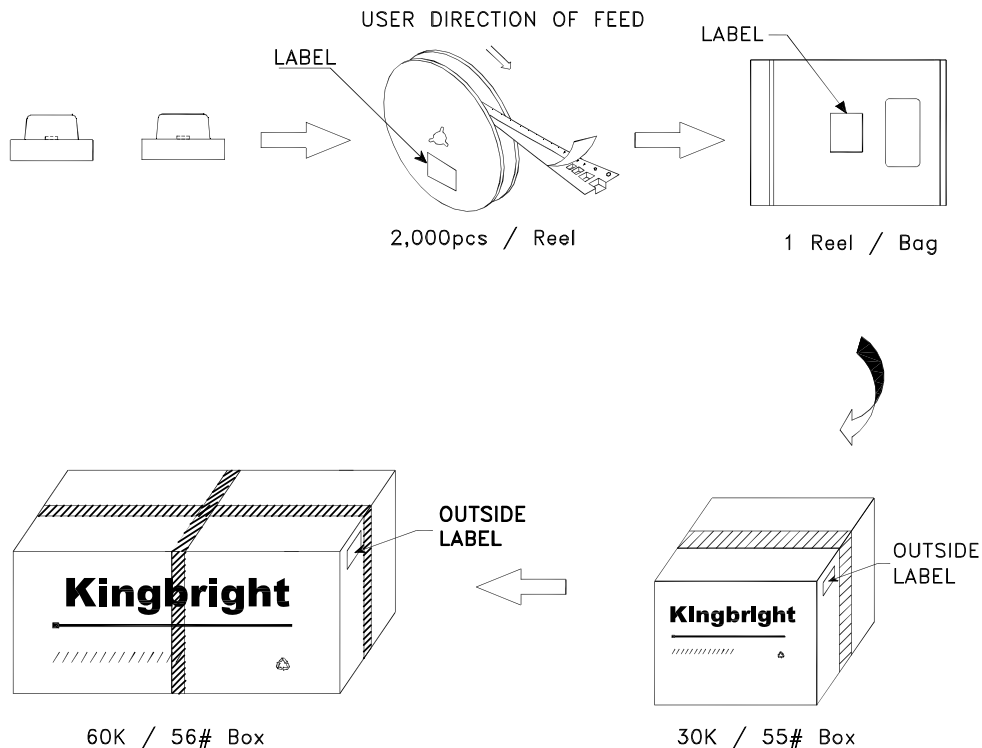
Green






## PACKING & LABEL SPECIFICATIONS

APB2012SYKCGKC



|   |  |
|---|--|
| <b>Kingbright</b>   |  |
| P/N0: APB2012xxx  |  |
| 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:   |  |
| <br><small>xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx</small> |  |
| RoHS Compliant  |  |

All design applications should refer to Kingbright application notes available at <http://www.KingbrightUSA.com/ApplicationNotes>