

PRELIMINARY SPEC

Part Number: APHBM2012CGKSYKC

Green
Super Bright Yellow

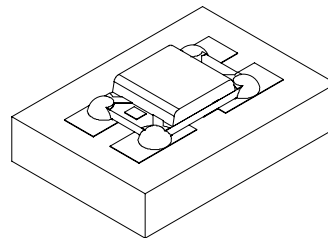
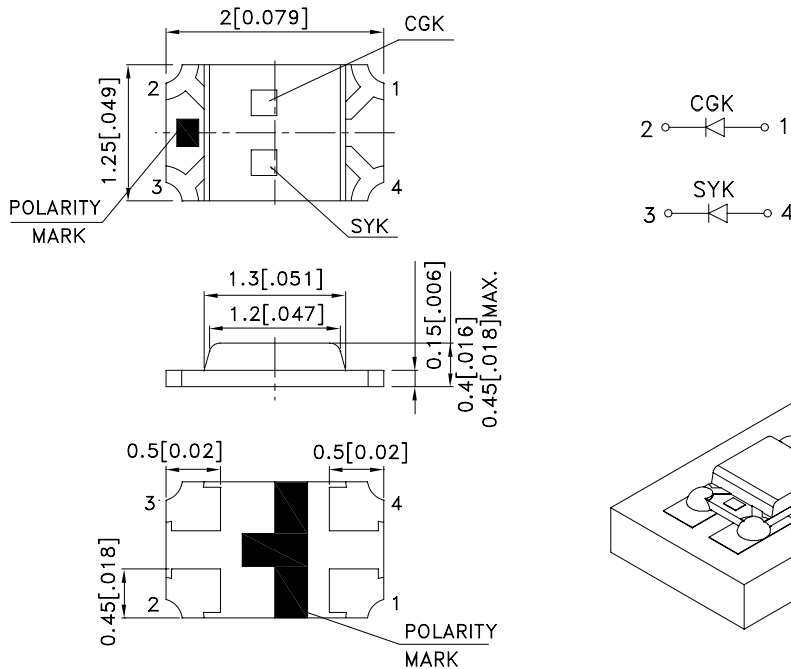
Features

- 2.0mmx1.25mm SMT 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.
- RoHS COMPLIANT.

Description

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

Package Dimensions



Notes:

1. All dimensions are in millimeters (inches).
2. 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.



Selection Guide

| Part No. | Dice | Lens Type | Iv (mcd) [2] @ 20mA | | Viewing Angle [1] |
|------------------|-------------------------------|-------------|------------------------|------|----------------------|
| | | | Min. | Typ. | 2θ1/2 |
| APHBM2012CGKSYKC | Green (InGaAlP) | WATER CLEAR | 36 | 80 | 120° |
| | Super Bright Yellow (InGaAlP) | | 50 | 150 | |

Notes:

1. θ1/2 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 | Typ. | Max. | Units | Test Conditions |
|--------|--------------------------|------------------------------|------------|------------|-------|-----------------|
| λpeak | Peak Wavelength | Green Super Bright Yellow | 574 590 | | nm | IF=20mA |
| λD [1] | Dominant Wavelength | Green Super Bright Yellow | 570 590 | | nm | IF=20mA |
| Δλ1/2 | Spectral Line Half-width | Green Super Bright Yellow | 20 20 | | nm | IF=20mA |
| C | Capacitance | Green Super Bright Yellow | 15 20 | | pF | VF=0V;f=1MHz |
| VF [2] | Forward Voltage | Green Super Bright Yellow | 2.1 2 | 2.5 2.5 | V | IF=20mA |
| IR | Reverse Current | Green Super Bright Yellow | | 10 10 | uA | VR = 5V |

Notes:

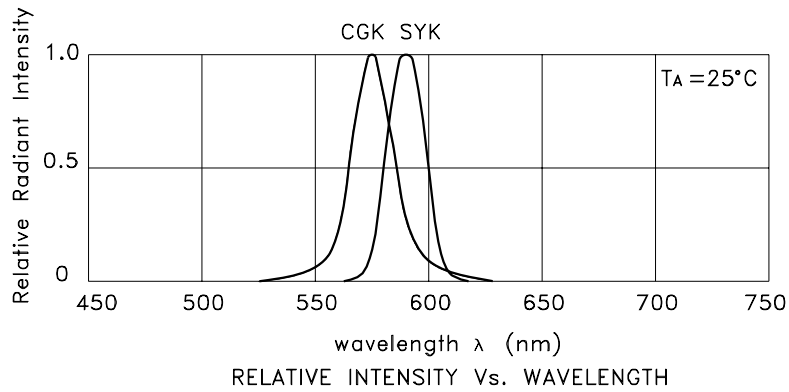
1. Wavelength: +/-1nm.
2. Forward Voltage: +/-0.1V.

Absolute Maximum Ratings at TA=25°C

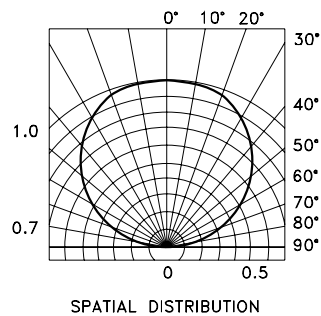
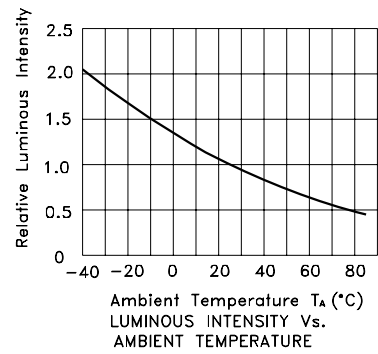
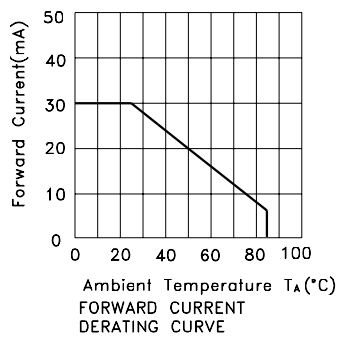
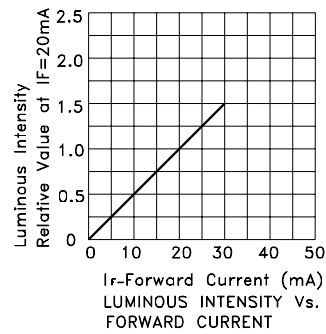
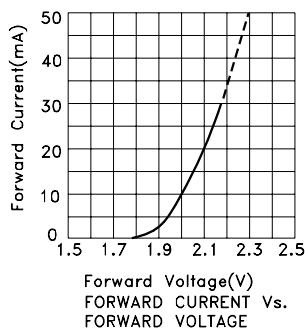
| Parameter | Green | Super Bright Yellow | Units |
|--------------------------|----------------|---------------------|-------|
| Power dissipation | 75 | 75 | mW |
| DC Forward Current | 30 | 30 | mA |
| Peak Forward Current [1] | 150 | 175 | mA |
| Reverse Voltage | 5 | | V |
| Operating Temperature | -40°C To +85°C | | |
| Storage Temperature | -40°C To +85°C | | |

Note:

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

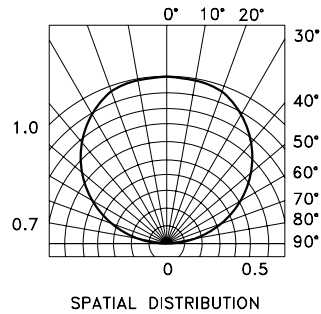
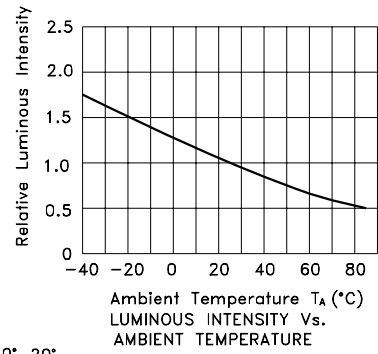
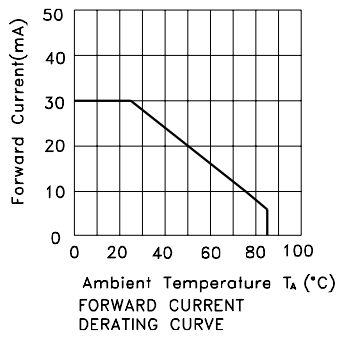
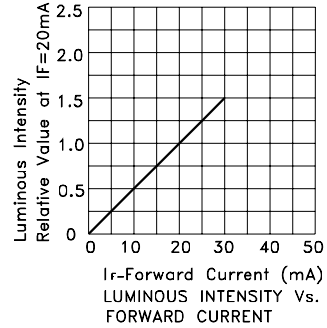
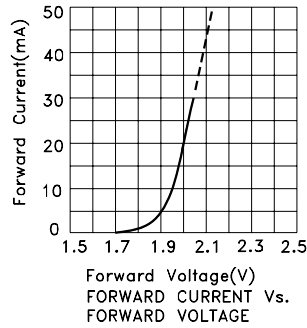


APHBM2012CGKSYKC
Green



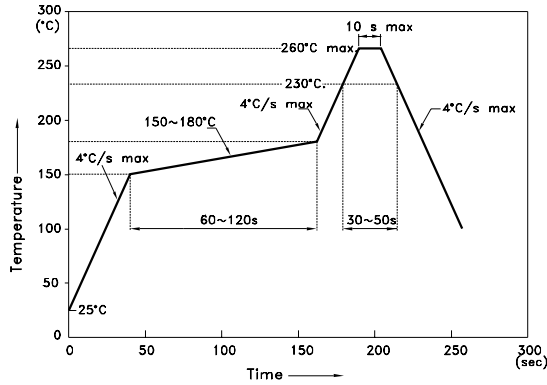
Kingbright

Super Bright Yellow



APHBM2012CGKSYKC

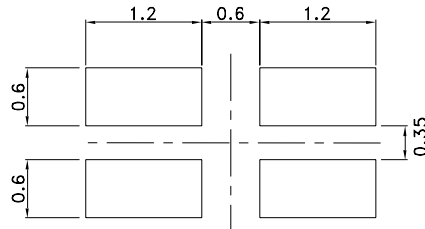
Reflow Soldering Profile For Lead-free SMT Process.



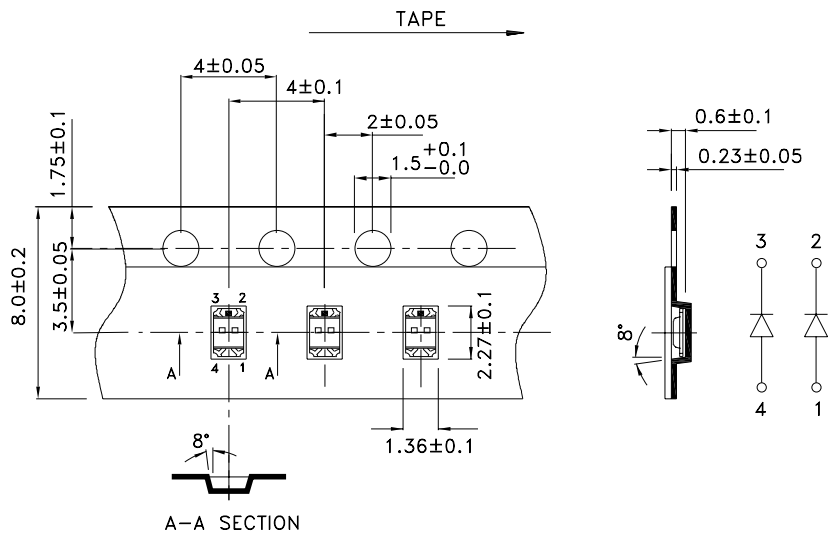
NOTES:

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)**

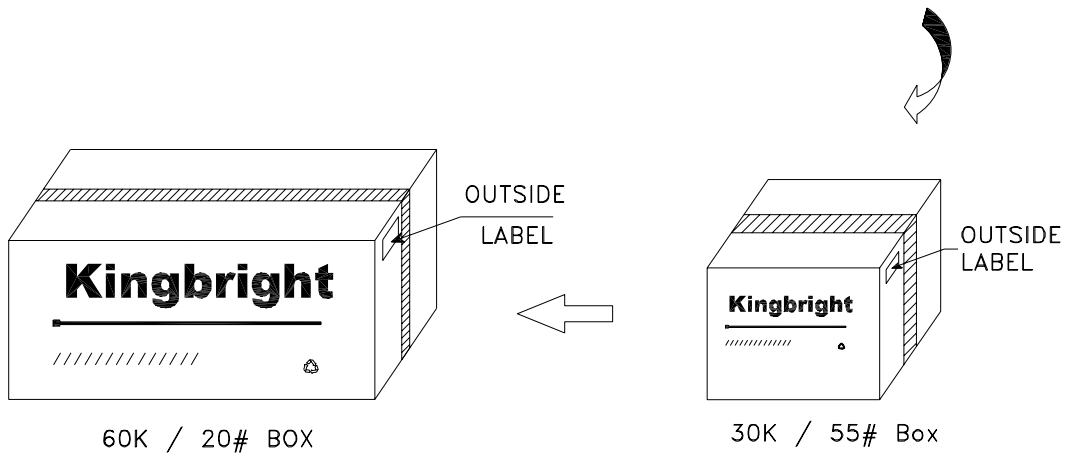
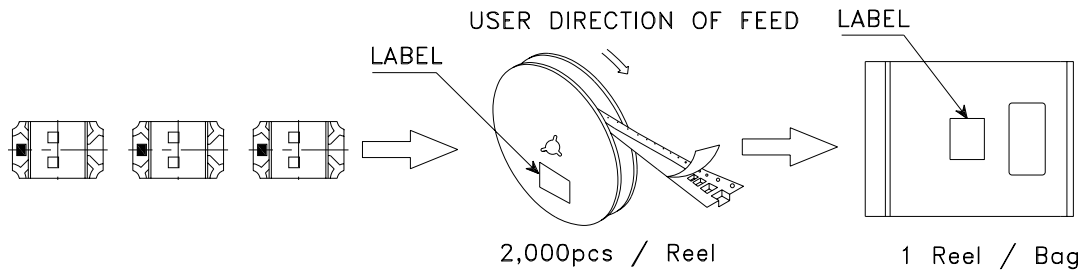


**Tape Specifications
(Units : mm)**



PACKING & LABEL SPECIFICATIONS

APHBM2012CGKSYKC



| | |
|---|--|
| <h2 style="margin: 0;">Kingbright</h2> | |
| P/NO: APHBM2012xxx | |
| QTY: 2,000 pcs | Q.C. Q C xx xx xxxx PASSED |
| S/N: XXXX | |
| CODE: XXX | |
| LOT NO: | |
| <small>XXXXXXXXXXXXXXXXXXXXXXXXXXXX</small> | |
| RoHS Compliant | |