

Part Number: APBVDA3020CGKSYKC

Green
Super Bright Yellow

Features

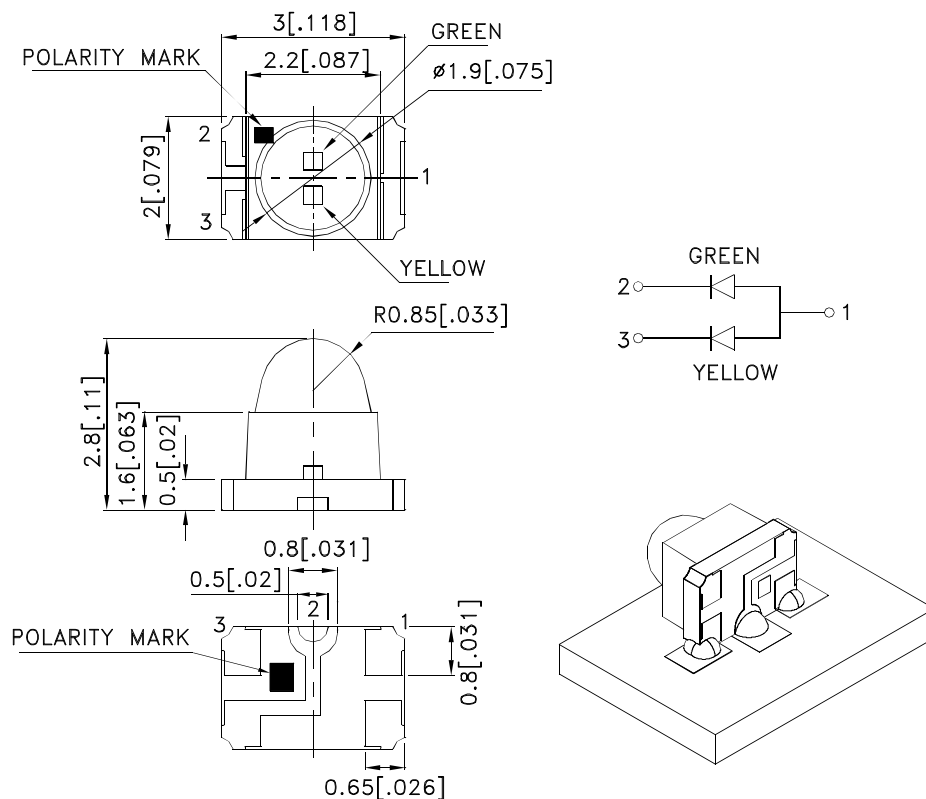
- 3.0mmx2.0mm SMT LED, 2.8mm thickness.
- Low power consumption.
- Various colors and lens types available.
- Ideal for back light and indicator
- Package : 2000pcs / reel.
- When soldered in the sideview configuration, the maximum shear tolerance of the epoxy lens is 300g.
- Moisture sensitivity level : level 3.
- RoHS compliant.

Description

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 ± 0.2 (0.008") 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 |
| APBVDA3020CGKSYKC | Green (AlGaInP) | WATER CLEAR | 50 | 150 | 15° |
| | Super Bright Yellow (AlGaInP) | | 480 | 750 | |

Notes:

- θ1/2 is the angle from optical centerline where the luminous intensity is 1/2 of the optical peak value.
- 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:

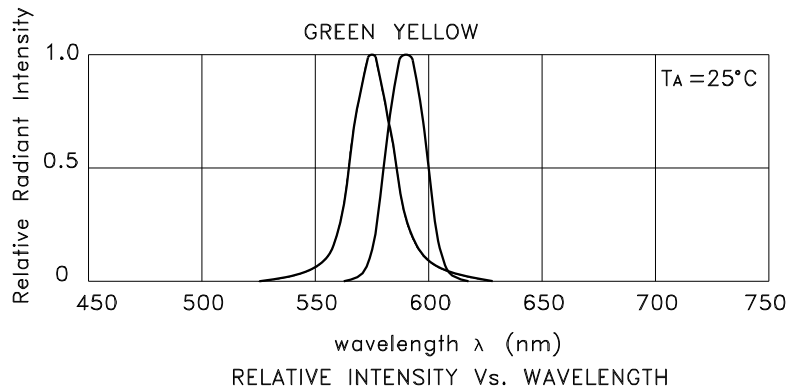
- Wavelength: +/-1nm.
- Forward Voltage: +/-0.1V.

Absolute Maximum Ratings at TA=25°C

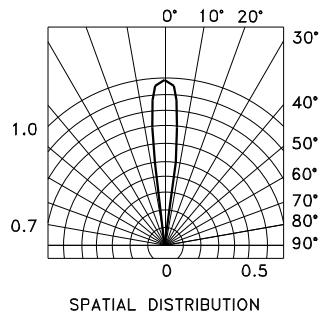
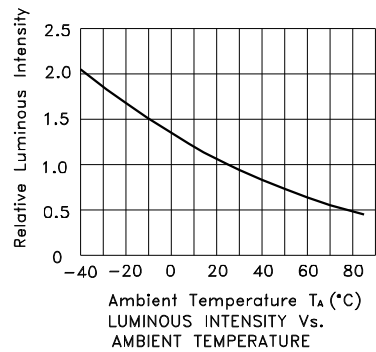
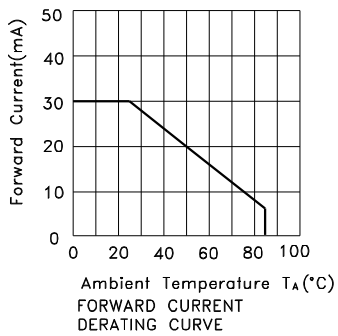
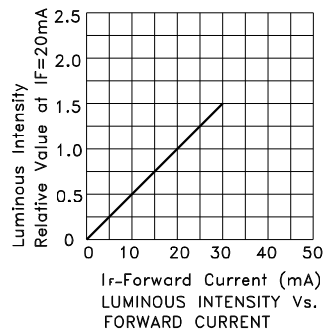
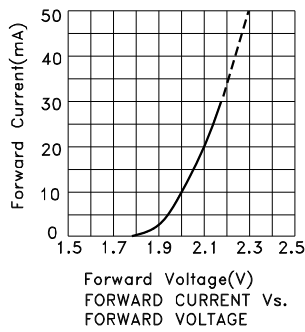
| Parameter | Green | Super Bright Yellow | Units |
|--------------------------|----------------|---------------------|-------|
| Power dissipation | 75 | 75 | mW |
| DC Forward Current | 30 | 30 | mA |
| Peak Forward Current [1] | 150 | 175 | mA |
| Reverse Voltage | 5 | | V |
| Operating Temperature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

Note:

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

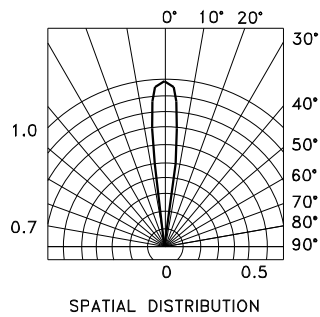
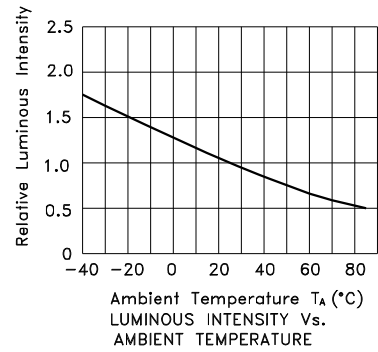
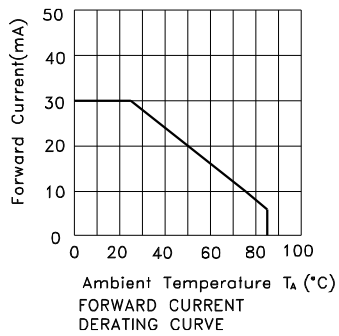
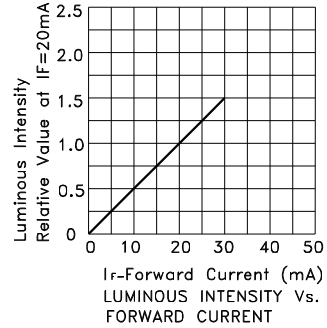
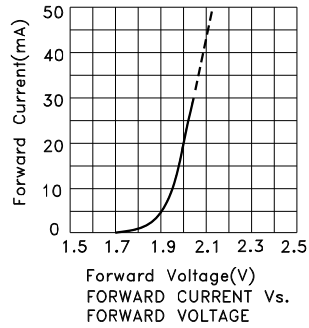


APBVDA3020CGKSYKC Green



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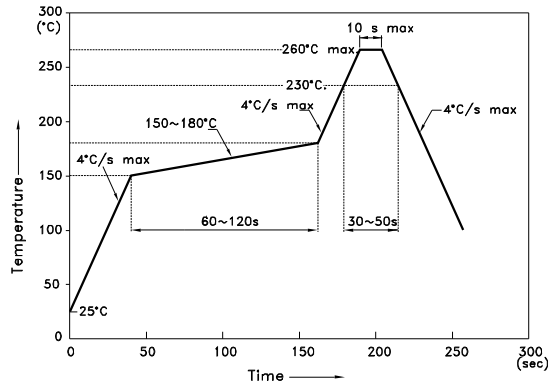
Super Bright Yellow



APBVDA3020CGKSYKC

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.

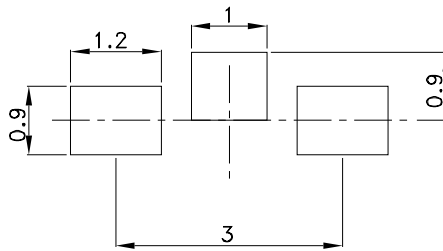
Reflow Soldering Profile For Lead-free SMT Process.



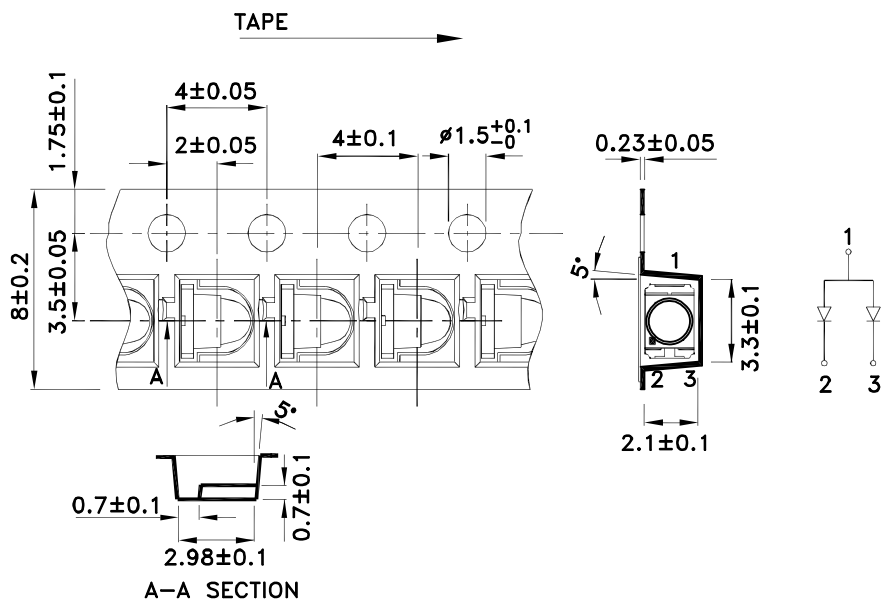
NOTES:

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)



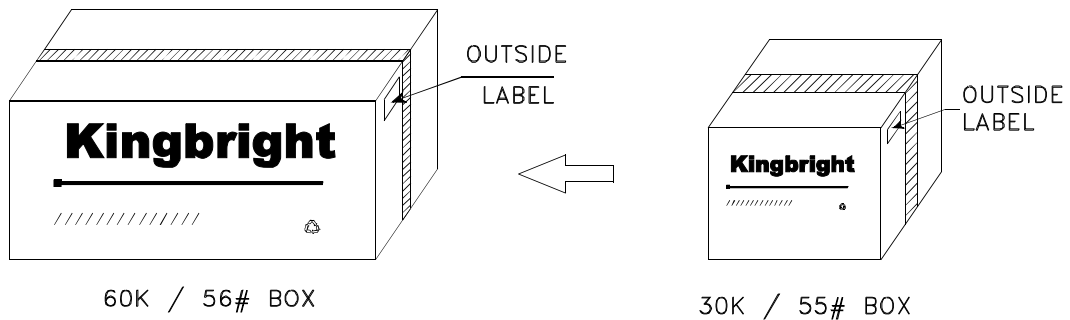
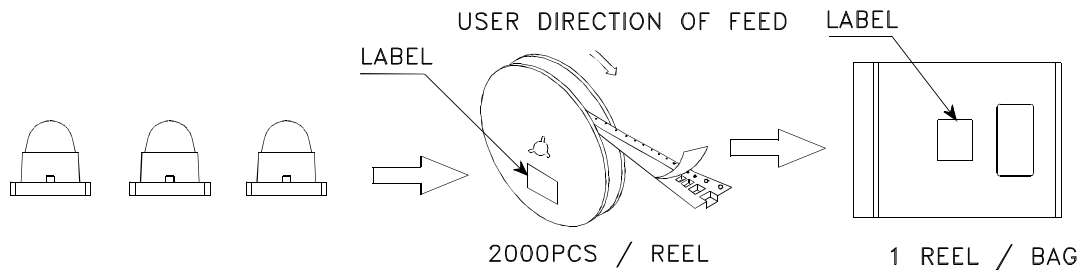
Tape Dimensions (Units : mm)



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PACKING & LABEL SPECIFICATIONS

APBVDA3020CGKSYKC



| | | | | |
|----------------------------------|---|-----|------------|--------|
| <h1>Kingbright</h1> | | | | |
| P/NO: APBVDA3020xxx | | | | |
| QTY: 2000 pcs | Q.C. | | | |
| S/N: XXXX | <table border="1"> <tr> <td>Q C</td> </tr> <tr> <td>xx xx xxxx</td> </tr> <tr> <td>PASSED</td> </tr> </table> | Q C | xx xx xxxx | PASSED |
| Q C | | | | |
| xx xx xxxx | | | | |
| PASSED | | | | |
| CODE: XXX | | | | |
| LOT NO: | | | | |
| xxxxxxxxxxxxxxxxxxxxxxxxxxxx | | | | |
| RoHS Compliant | | | | |