

Part Number: AA4040SGC

Super Bright Green

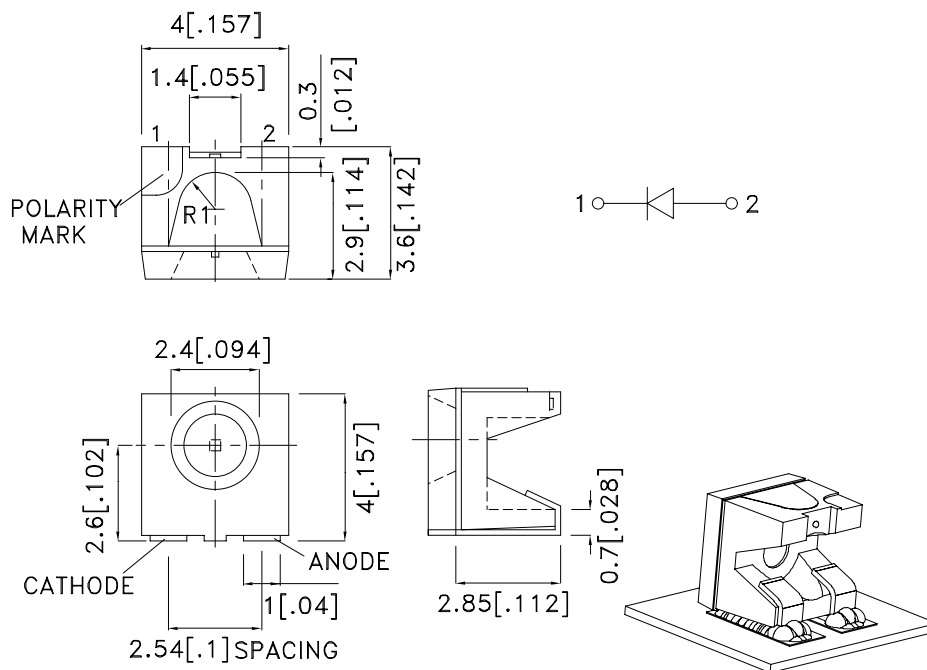
### Features

- SINGLE COLOR.
- SUITABLE FOR ALL SMT ASSEMBLY AND SOLDER PROCESS.
- AVAILABLE ON TAPE AND REEL.
- IDEAL FOR BACKLIGHTING.
- PACKAGE : 500PCS / REEL.
- MOISTURE SENSITIVITY LEVEL : LEVEL 4.
- RoHS COMPLIANT.

### Description

The Super Bright Green source color devices are made with Gallium Phosphide Green Light Emitting Diode.

### Package Dimensions



#### Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is  $\pm 0.25(0.01)$ " 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]<br>@ 20mA |      | Viewing Angle [1] |
|-----------|--------------------------|-------------|------------------------|------|-------------------|
|           |                          |             | Min.                   | Typ. | 2θ1/2             |
| AA4040SGC | Super Bright Green (GaP) | WATER CLEAR | 10                     | 25   | 90°               |

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           |
|-----------------------|--------------------------|--------------------|------|------|-------|---------------------------|
| $\lambda_{peak}$      | Peak Wavelength          | Super Bright Green | 565  |      | nm    | I <sub>F</sub> =20mA      |
| $\lambda_D$ [1]       | Dominant Wavelength      | Super Bright Green | 568  |      | nm    | I <sub>F</sub> =20mA      |
| $\Delta\lambda_{1/2}$ | Spectral Line Half-width | Super Bright Green | 30   |      | nm    | I <sub>F</sub> =20mA      |
| C                     | Capacitance              | Super Bright Green | 15   |      | pF    | V <sub>F</sub> =0V;f=1MHz |
| V <sub>F</sub> [2]    | Forward Voltage          | Super Bright Green | 2.2  | 2.5  | V     | I <sub>F</sub> =20mA      |
| I <sub>R</sub>        | Reverse Current          | Super Bright Green |      | 10   | uA    | V <sub>R</sub> =5V        |

Notes:

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

## Absolute Maximum Ratings at TA=25°C

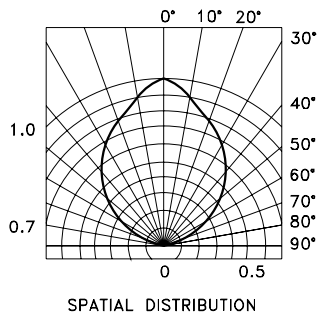
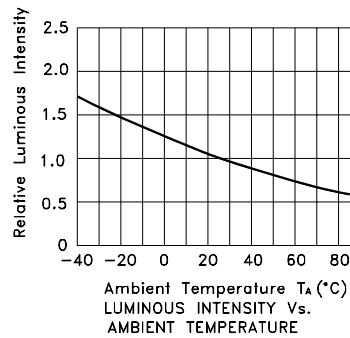
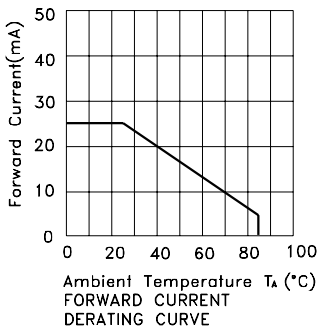
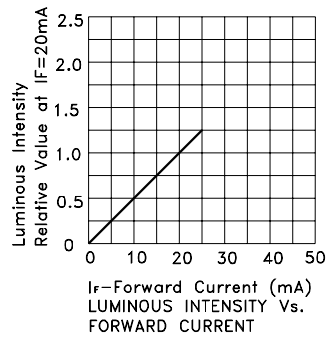
| Parameter                | Super Bright Green | Units |
|--------------------------|--------------------|-------|
| Power dissipation        | 62.5               | mW    |
| DC Forward Current       | 25                 | mA    |
| Peak Forward Current [1] | 140                | mA    |
| Reverse Voltage          | 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.



**Super Bright Green AA4040SGC**



## AA4040SGC

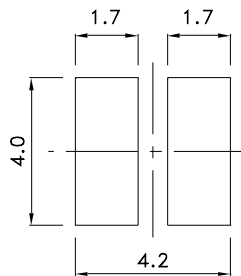
Reflow Soldering Profile For Lead-free SMT Process.



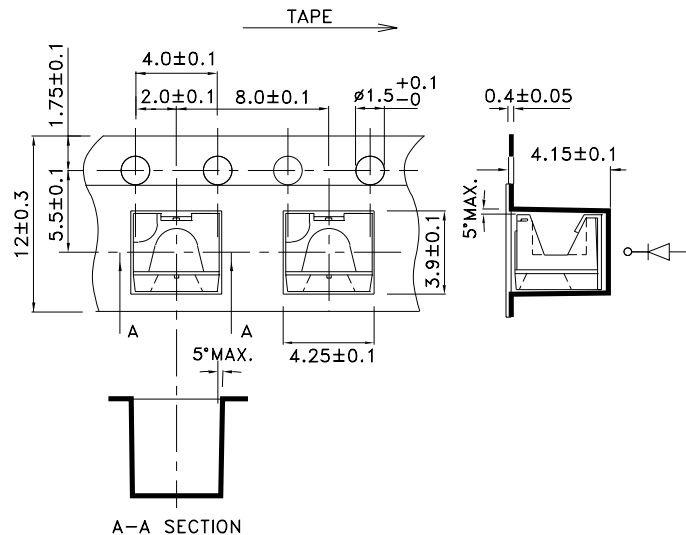
**NOTES:**

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)



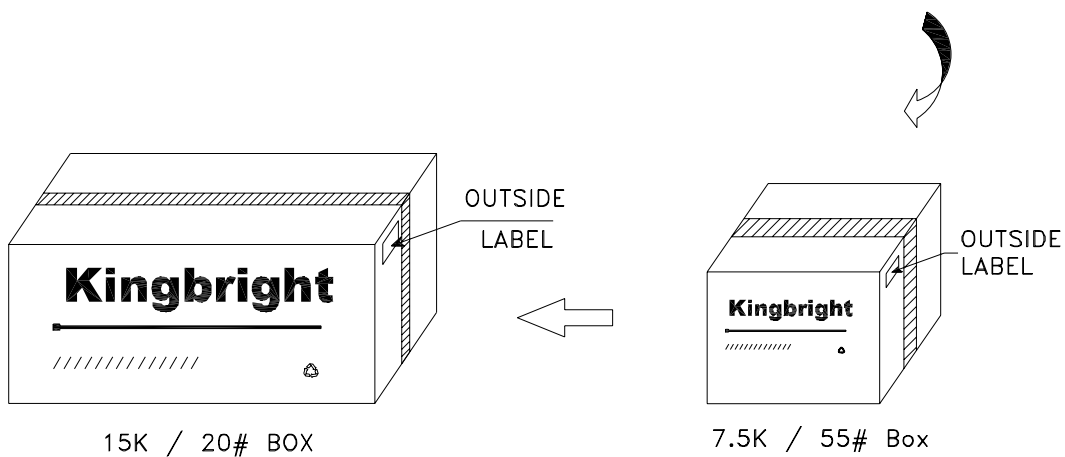
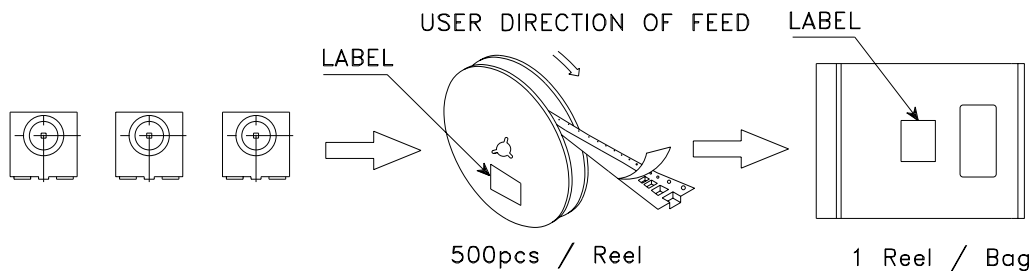
### Tape Specifications (Units : mm)




# Kingbright

PACKING & LABEL SPECIFICATIONS

AA4040SGC



|  |  |
|--|--|
| <h1>Kingbright</h1>  |  |
| P/NO: AA4040xxx  |  |
| QTY: 500 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>xxxxxxxxxxxxxxxxxxxxxxxxxxxx |  |
| RoHS Compliant   |  |