

KP-1608SGC

SUPER BRIGHT GREEN

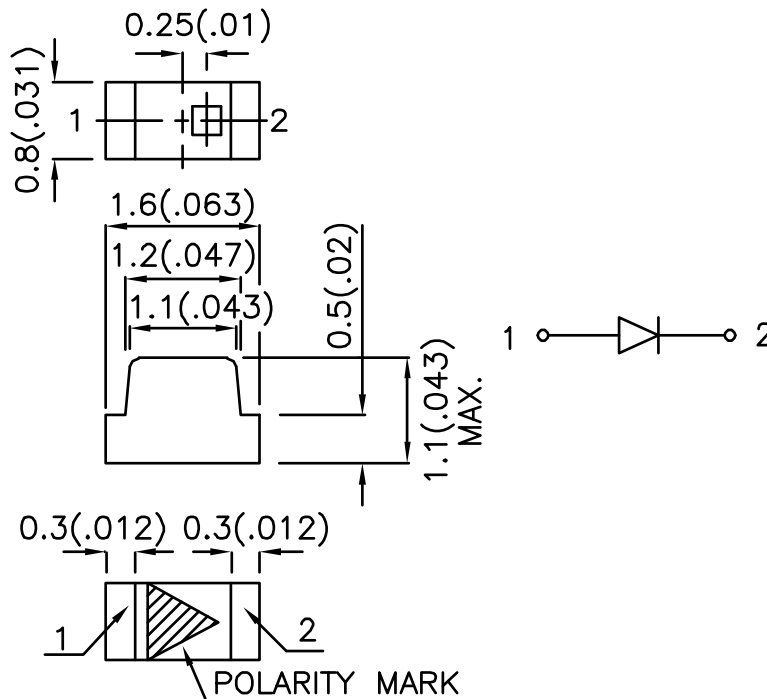
### Features

- 1.6mmX0.8mm SMT LED, 1.1mm THICKNESS.
- LOW POWER CONSUMPTION.
- WIDE VIEWING ANGLE.
- IDEAL FOR BACKLIGHT AND INDICATOR.
- VARIOUS COLORS AND LENS TYPES AVAILABLE.
- PACKAGE: 2000PCS / REEL .
- 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  $\pm 0.1$  (0.004") unless otherwise noted.
3. Specifications are subject to change without notice.

## Selection Guide

| Part No.   | Dice                     | Lens Type   | Iv (mcd)<br>@ 20mA |      | Viewing<br>Angle |
|------------|--------------------------|-------------|--------------------|------|------------------|
|            |                          |             | Min.               | Typ. | 2θ1/2            |
| KP-1608SGC | SUPER BRIGHT GREEN (GaP) | WATER CLEAR | 4                  | 15   | 120°             |

Note:

1. θ1/2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.

## Electrical / Optical Characteristics at TA=25°C

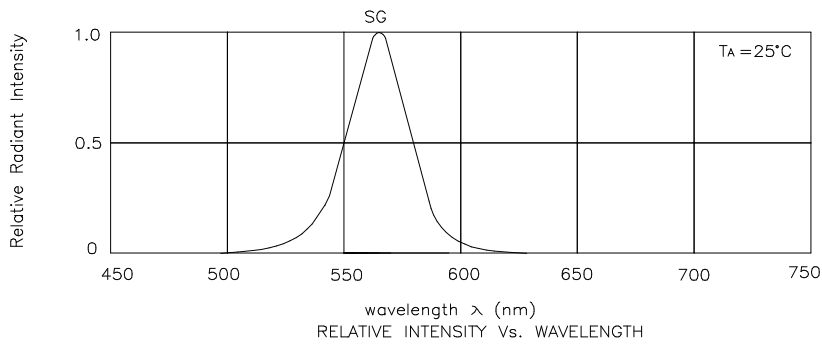
| Symbol            | Parameter                | Device             | Typ. | Max. | Units | Test Conditions           |
|-------------------|--------------------------|--------------------|------|------|-------|---------------------------|
| λ <sub>peak</sub> | Peak Wavelength          | Super Bright Green | 565  |      | nm    | I <sub>F</sub> =20mA      |
| λ <sub>D</sub>    | Dominant Wavelength      | Super Bright Green | 568  |      | nm    | I <sub>F</sub> =20mA      |
| Δλ <sub>1/2</sub> | 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>    | 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       |

## Absolute Maximum Ratings at TA=25°C

| Parameter                     | Super Bright Green | Units |
|-------------------------------|--------------------|-------|
| Power dissipation             | 105                | mW    |
| DC Forward Current            | 25                 | mA    |
| Peak Forward Current [1]      | 140                | mA    |
| Reverse Voltage               | 5                  | V     |
| Operating/Storage Temperature | -40°C To +85°C     |       |

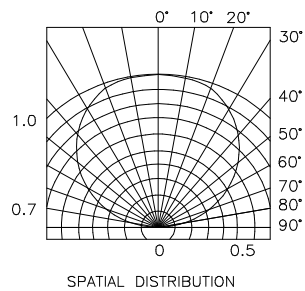
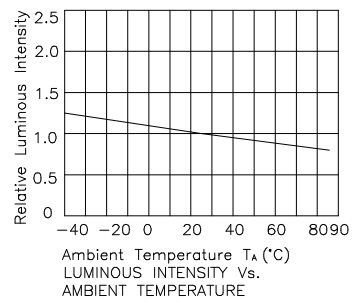
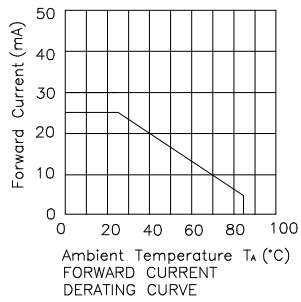
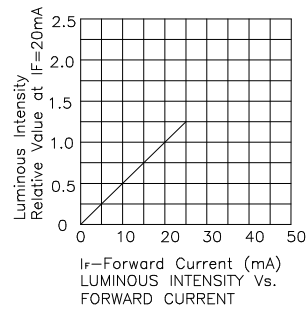
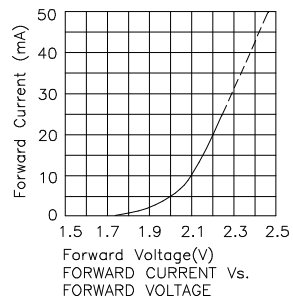
Note:

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



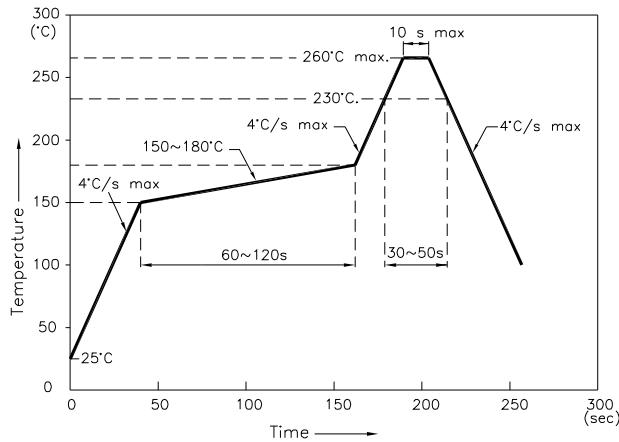
## Super Bright Green

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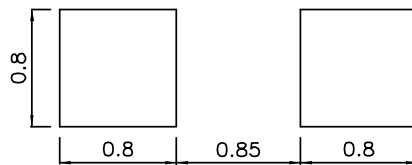
Reflow Soldering Profile For Lead-free SMT Process.



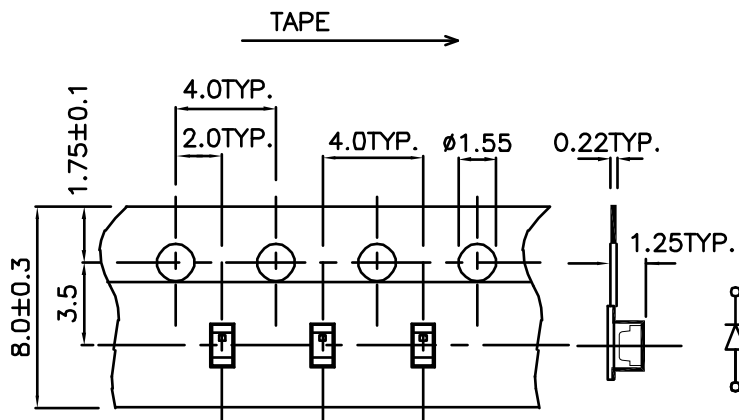
**NOTES:**

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)



### Tape Specifications (Units : mm)



If special sorting is required (e.g. binning based on forward voltage, luminous intensity, or wavelength), the typical accuracy of the sorting process is as follows:

1. Wavelength: +/-1nm
2. Luminous Intensity: +/-15%
3. Forward Voltage: +/-0.1V

Note: Accuracy may depend on the sorting parameters.