

#### SUBMINIATURE SOLID STATE LAMP

KM2520SGD09

SUPER BRIGHT GREEN

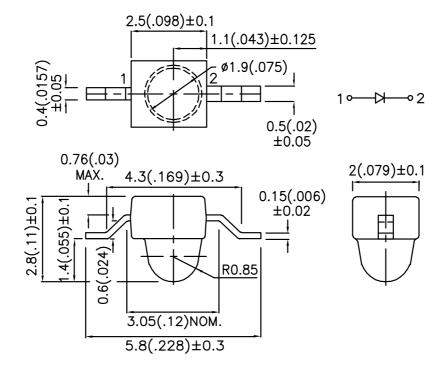
#### **Features**

- •SUBMINIATURE PACKAGE.
- •WIDE VIEWING ANGLE.
- •Z-BEND LEAD.
- •LONG LIFE SOLID STATE RELIABILITY.
- •LOW PACKAGE PROFILE.
- PACKAGE: 1000PCS / REEL.
- RoHS COMPLIANT.

#### **Description**

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

## **Package Dimensions**



#### Notes:

- All dimensions are in millimeters (inches).
- 2. Tolerance is  $\pm 0.25(0.01")$  unless otherwise noted.
- 3. Lead spacing is measured where the leads emerge from the package.
- 4. Specifications are subject to change without notice.

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# Kingbright

## Selection Guide

| Part No.    | Dice                     | Lens Type      | lv (mcd)<br>@ 20mA |      | Viewing<br>Angle |
|-------------|--------------------------|----------------|--------------------|------|------------------|
|             |                          | ,              | Min.               | Тур. | 2 θ 1/2          |
| KM2520SGD09 | SUPER BRIGHT GREEN (GaP) | GREEN DIFFUSED | 2.6                | 10   | 40°              |

Note

## Electrical / Optical Characteristics at T<sub>A</sub>=25°C

| Symbol | Parameter                | Device             | Тур. | Max. | Units | Test Conditions |
|--------|--------------------------|--------------------|------|------|-------|-----------------|
| λpeak  | Peak Wavelength          | Super Bright Green | 565  |      | nm    | IF=20mA         |
| λD     | Dominant Wavelength      | Super Bright Green | 568  |      | nm    | IF=20mA         |
| Δλ1/2  | Spectral Line Half-width | Super Bright Green | 30   |      | nm    | IF=20mA         |
| С      | Capacitance              | Super Bright Green | 15   |      | pF    | VF=0V;f=1MHz    |
| VF     | Forward Voltage          | Super Bright Green | 2.2  | 2.5  | V     | IF=20mA         |
| lr     | Reverse Current          | Super Bright Green |      | 10   | uA    | VR = 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     |       |

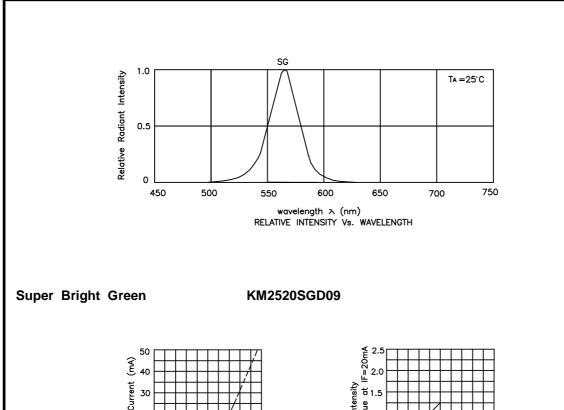
Note

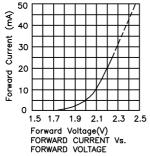
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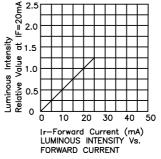
 $<sup>1. \</sup>theta 1/2$  is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.

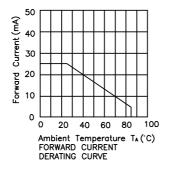
<sup>1. 1/10</sup> Duty Cycle, 0.1ms Pulse Width.

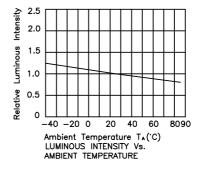
## **Kingbright**

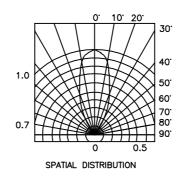










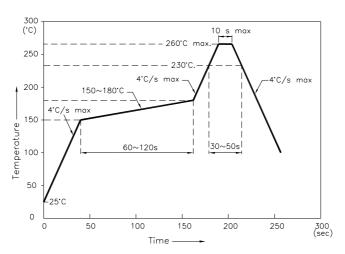


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Reflow Soldering Profile For Lead-free SMT Process.

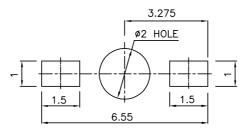


#### NOTES:

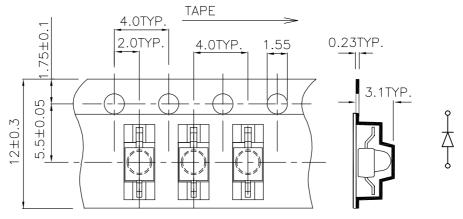
- 1.We recommend the reflow temperature 245°C(+/-5°C).The maximum soldering temperature should be limited to 260°C.
- 2.Don't cause stress to the epoxy resin while it is exposed to high temperature.
- 3. Number of reflow process shall be 2 times or less.

## **Recommended Soldering Pattern**

(Units: mm)



## Tape Specifications (Units: mm)



#### Remarks:

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.

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