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With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China

Part Number: AM23SGC-F Super Bright Green

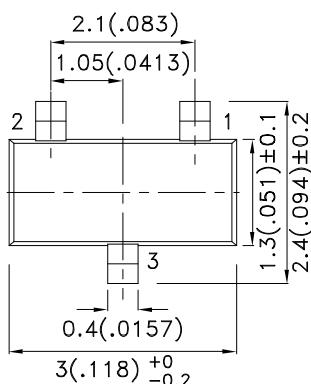
### Features

- SOT-23 package surface mount LED lamp.
- Low power consumption.
- Long life - solid state reliability.
- Package: 2000pcs / reel.
- Moisture sensitivity level : level 3.
- RoHS compliant.

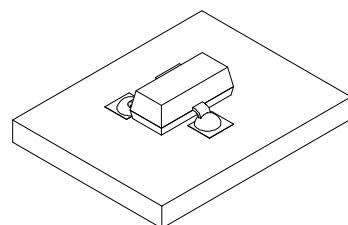
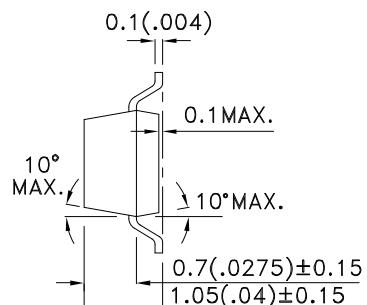
### Description

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

### Package Dimensions



1 ANODE  
2 N.C.  
3 CATHODE



#### Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is  $\pm 0.25$  (0.01") unless otherwise noted.
3. Lead spacing is measured where the lead emerge from the package.
4. The specifications, characteristics and technical data described in the datasheet are subject to change without prior notice.
5. The device has a single mounting surface. The device must be mounted according to the specifications.



# Kingbright

## Selection Guide

| Part No.  | Dice                     | Lens Type   | I <sub>v</sub> (mcd) [2] @ 20mA |      | Viewing Angle [1] |
|-----------|--------------------------|-------------|---------------------------------|------|-------------------|
|           |                          |             | Min.                            | Typ. |                   |
| AM23SGC-F | Super Bright Green (GaP) | Water Clear | 4                               | 10   | 140°              |

Notes:

1. θ1/2 is the angle from optical centerline where the luminous intensity is 1/2 of the optical peak 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          | Super Bright Green | 565  |      | nm    | I <sub>F</sub> =20mA      |
| λD [1]             | Dominant Wavelength      | Super Bright Green | 568  |      | nm    | I <sub>F</sub> =20mA      |
| Δλ1/2              | 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:

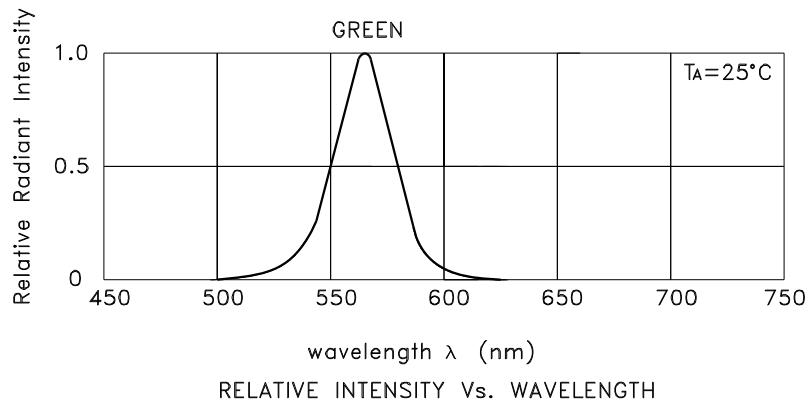
1. Wavelength: +/-1nm.
2. Forward Voltage: +/-0.1V.

## 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     |       |

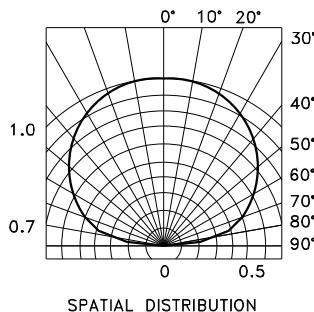
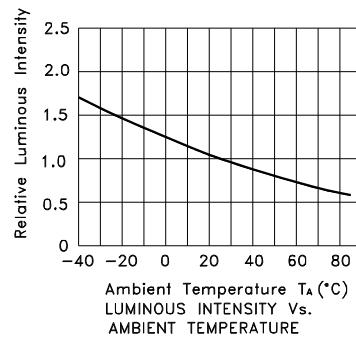
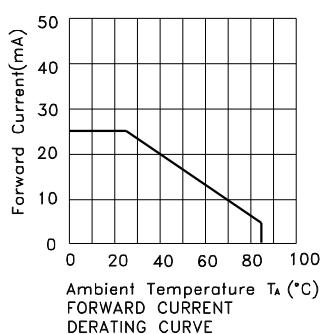
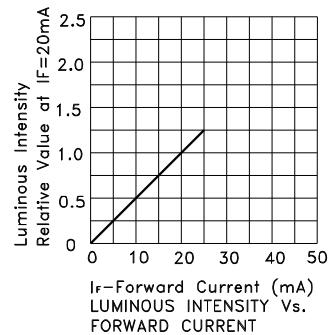
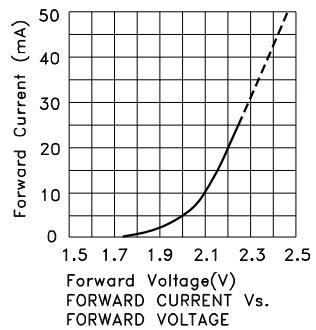
Note:

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



Super Bright Green

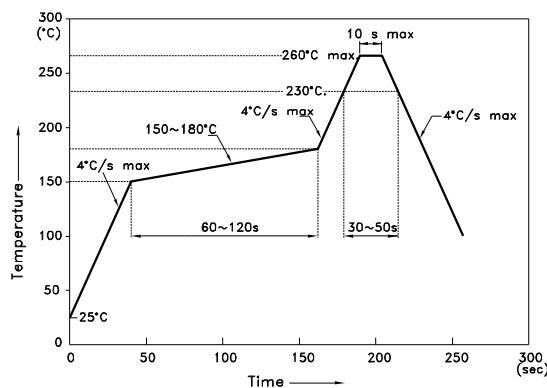
AM23SGC-F



## AM23SGC-F

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.

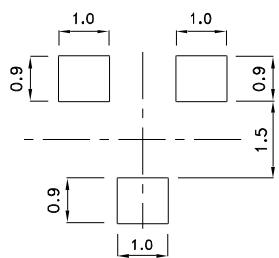
Reflow Soldering Profile For Lead-free SMT Process.



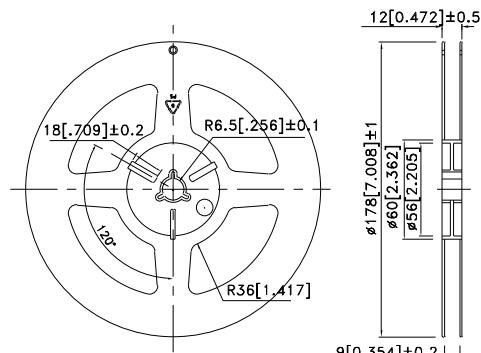
NOTES:

1. We recommend the reflow temperature  $245^{\circ}\text{C} (+/- 5^{\circ}\text{C})$ . The maximum soldering temperature should be limited to  $260^{\circ}\text{C}$ .
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.

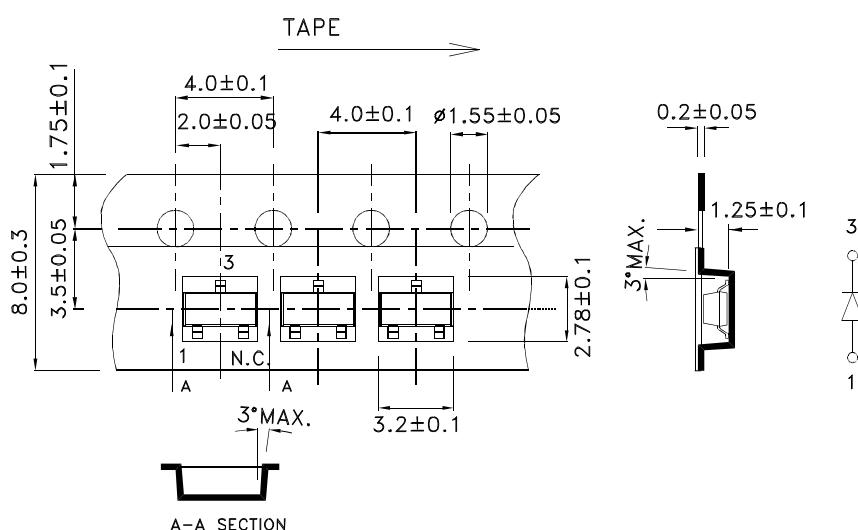
### Recommended Soldering Pattern (Units : mm; Tolerance: $\pm 0.1$ )



### Reel Dimension



### Tape Dimensions (Units : mm)



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## PACKING & LABEL SPECIFICATIONS

AM23SGC-F

