

Part Number: AM23SGD-F

Super Bright Green

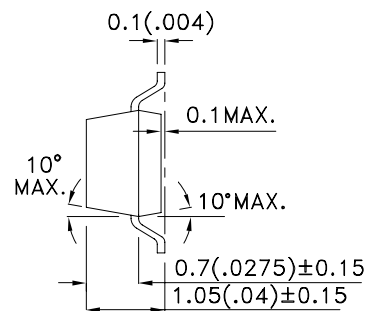
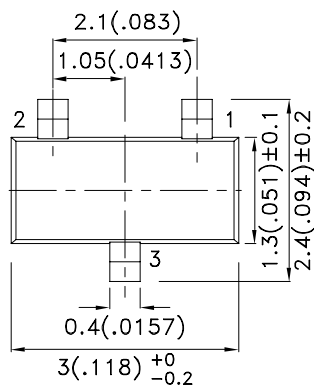
### Features

- 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.

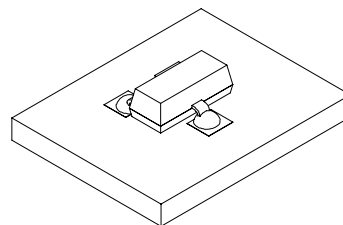
### Description

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. Specifications are subject to change without notice.
5. 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<br>Angle [1] |
|-----------|--------------------------|----------------|------------------------|------|----------------------|
|           |                          |                | Min.                   | Typ. | 2θ1/2                |
| AM23SGD-F | Super Bright Green (GaP) | GREEN DIFFUSED | 2.6                    | 8    | 140°                 |

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 |
|--------|--------------------------|--------------------|------|------|-------|-----------------|
| λpeak  | Peak Wavelength          | Super Bright Green | 565  |      | nm    | IF=20mA         |
| λD [1] | Dominant Wavelength      | Super Bright Green | 568  |      | nm    | IF=20mA         |
| Δλ1/2  | Spectral Line Half-width | Super Bright Green | 30   |      | nm    | IF=20mA         |
| C      | Capacitance              | Super Bright Green | 15   |      | pF    | VF=0V;f=1MHz    |
| VF [2] | Forward Voltage          | Super Bright Green | 2.2  | 2.5  | V     | IF=20mA         |
| IR     | Reverse Current          | Super Bright Green |      | 10   | uA    | VR=5V           |

Notes:

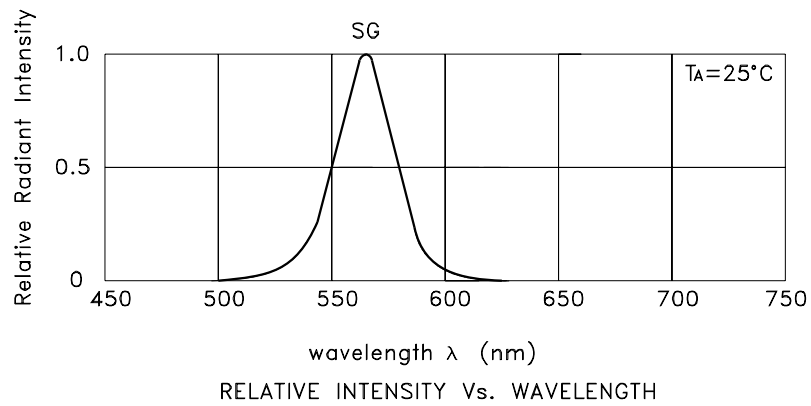
- 1.Wavelength: +/-1nm.
2. Forward Voltage: +/-0.1V.

## Absolute Maximum Ratings at TA=25°C

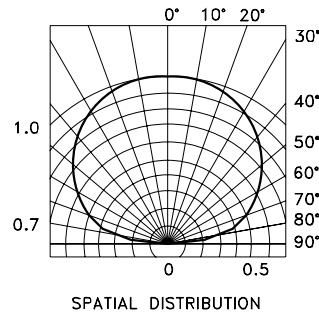
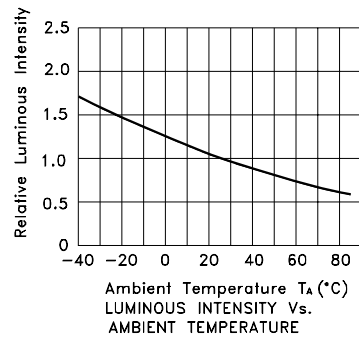
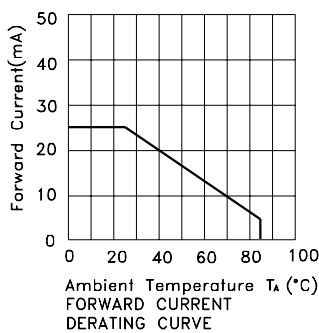
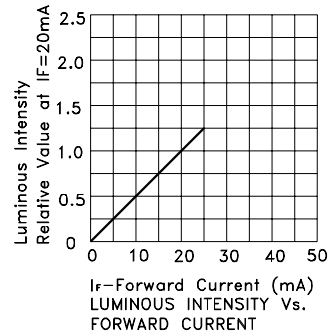
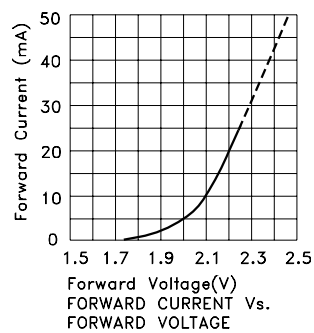
| Parameter                | Super Bright Green | Units |
|--------------------------|--------------------|-------|
| Power dissipation        | 62.5               | mW    |
| DC Forward Current       | 25                 | mA    |
| Peak Forward Current [1] | 140                | mA    |
| Reverse Voltage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

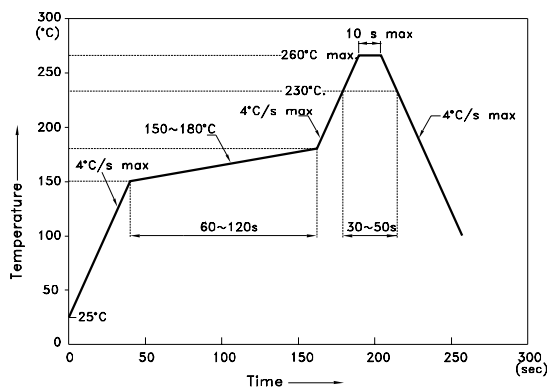


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# AM23SGD-F

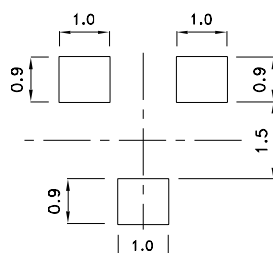
### Reflow Soldering Profile For Lead-free SMT Process.



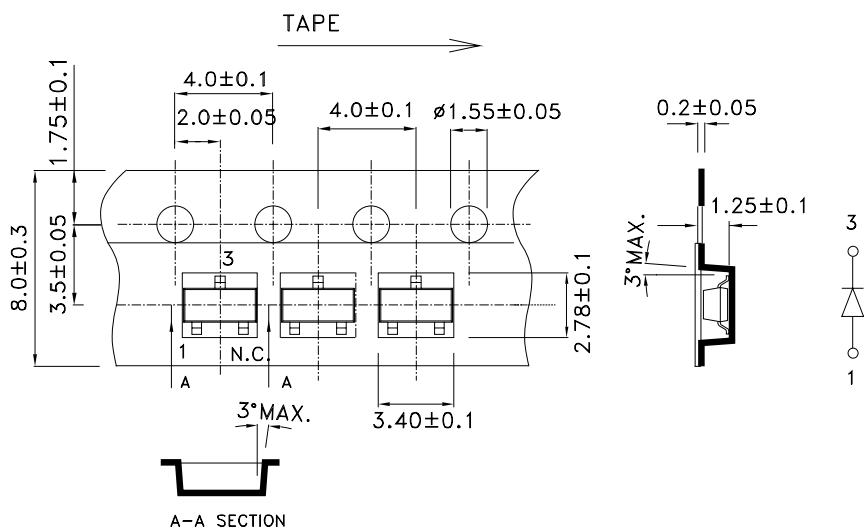
NOTES:

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:  $\pm 0.1$ )

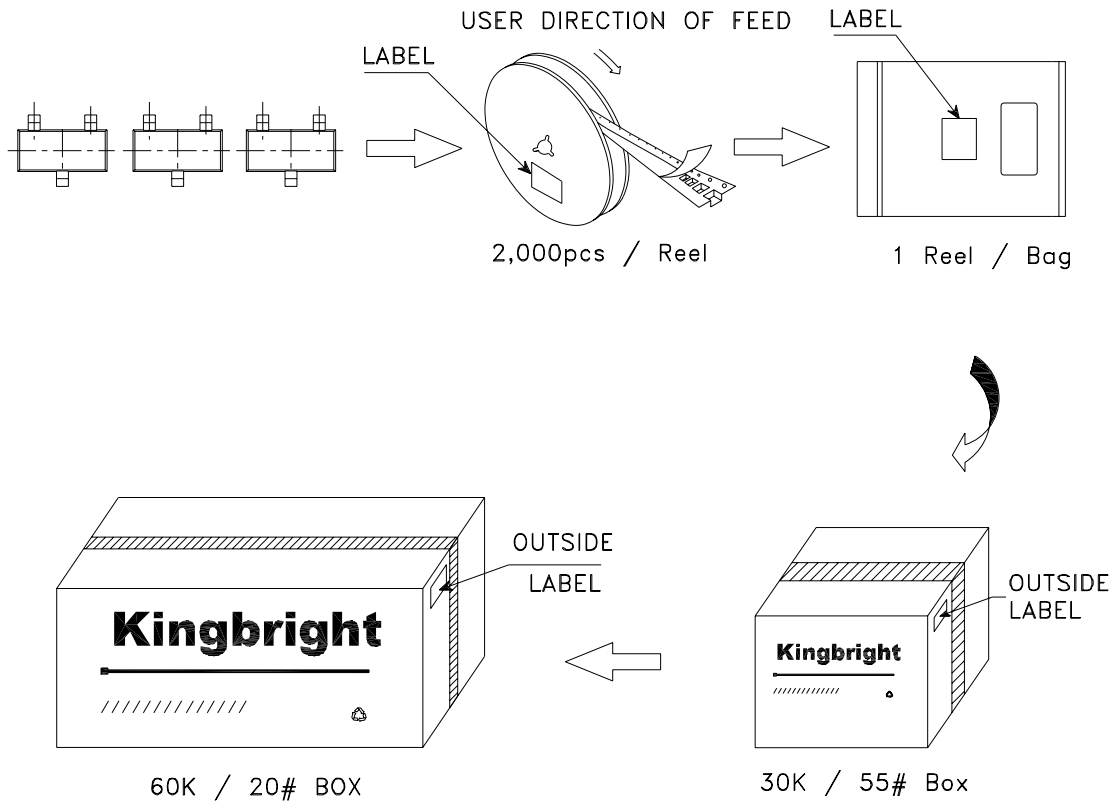


### Tape Specifications (Units : mm)



## PACKING & LABEL SPECIFICATIONS

AM23SGD-F



|                                                                                                                          |                                               |
|--------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|
| <b>Kingbright</b>                                                                                                        |                                               |
| P/NO: AM23xxx                                                                                                            |                                               |
| QTY: 2,000 pcs                                                                                                           | Q.C. <div>Q C<br/>xx xx xxxx<br/>PASSED</div> |
| S/N: XXXX                                                                                                                |                                               |
| CODE: XXX                                                                                                                |                                               |
| LOT NO:                                                                                                                  |                                               |
| <br>xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx |                                               |
| RoHS Compliant                                                                                                           |                                               |