

### **SOT-23 SURFACE MOUNT LED LAMP**

Part Number: AM23SGD-F Super Bright Green

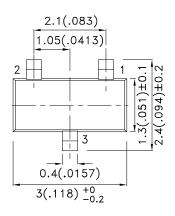
### **Features**

- 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.

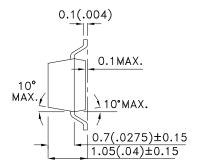
## Description

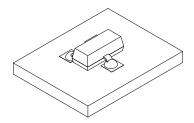
The Super Bright Green source color devices are made with Gallium Phosphide Green Light Emitting Diode.

## **Package Dimensions**



- 1 ANODE
- 2 N.C.
- 3 CATHODE





### Notes:

- All dimensions are in millimeters (inches).
   Tolerance is ±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.

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## **Selection Guide**

Part No.	Dice	Lens Type	lv (mcd) [2] @ 20mA		Viewing Angle [1]
			Min.	Тур.	201/2
AM23SGD-F	Super Bright Green (GaP)	Green Diffused	3	8	140°

- Notes: 1.  $\theta$ 1/2 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	Тур.	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
С	Capacitance	Super Bright Green	15		pF	VF=0V;f=1MHz
VF [2]	Forward Voltage	Super Bright Green	2.2	2.5	V	IF=20mA
lr	Reverse Current	Super Bright Green		10	uA	V <sub>R</sub> =5V

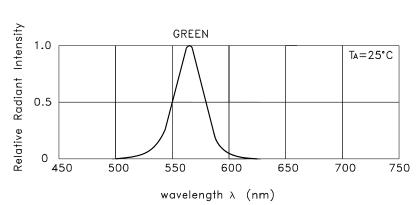
- Notes: 1.Wavelength: +/-1nm. 2. Forward Voltage: +/-0.1V.

## Absolute Maximum Ratings at TA=25°C

Parameter	Super Bright Green		
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		

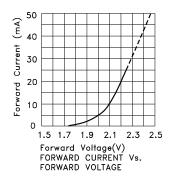
Note: 1. 1/10 Duty Cycle, 0.1ms Pulse Width.

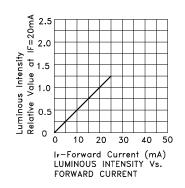
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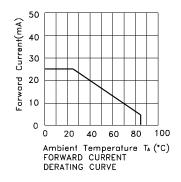


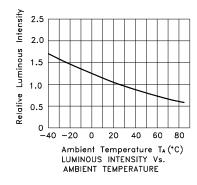
RELATIVE INTENSITY Vs. WAVELENGTH

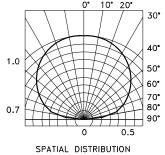
## Super Bright Green AM23SGD-F











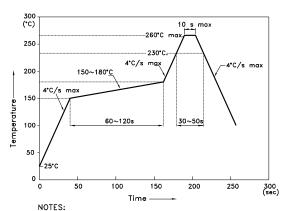
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### AM23SGD-F

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.



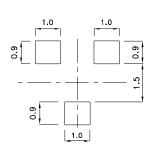
- NOTES:

  1.We recommend the reflow temperature 245°C(+/-5°C). The maximum soldering temperature should be limited to 260°C.

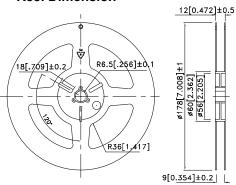
  2.Don't cause stress to the epoxy resin while it is exposed to high temperature.
- to high temperature.

  3.Number of reflow process shall be 2 times or less.

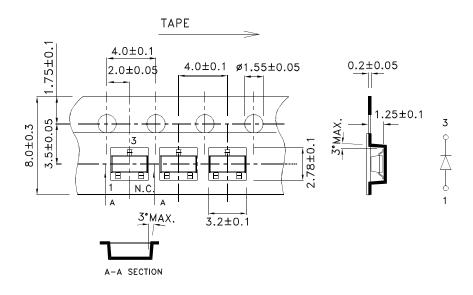
## Recommended Soldering Pattern (Units: mm; Tolerance: ± 0.1)



## **Reel Dimension**



## Tape Dimensions (Units: mm)



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## **PACKING & LABEL SPECIFICATIONS** AM23SGD-F USER DIRECTION OF FEED LABEL LABEL 2,000pcs / Reel 1 Reel / Bag OUTSIDE LABEL OUTSIDE LABEL Kingbright Kingbright 30K / 55# Box 60K / 56# BOX



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