



ATTENTION
OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
DISCHARGE
SENSITIVE
DEVICES

Part Number: AM23SRD-F

Super Bright Red

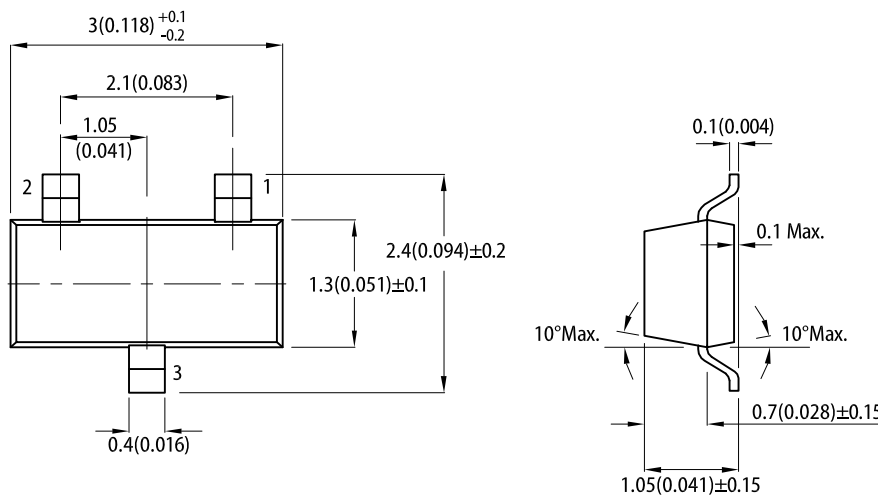
Features

- 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.

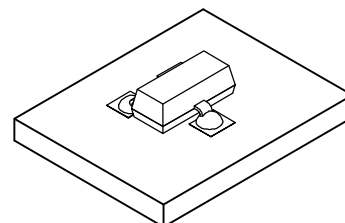
Descriptions

- The Super Bright Red source color devices are made with Gallium Aluminum Arsenide Red Light Emitting Diode.
- Electrostatic discharge and power surge could damage the LEDs.
- It is recommended to use a wrist band or anti-electrostatic glove when handling the LEDs.
- All devices, equipments and machineries must be electrically grounded.

Package Dimensions



1. Cathode
2. N.C.
3. Anode



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.



Selection Guide

| Part No. | Emitting Color (Material) | Lens Type | Iv (mcd) [2] @ 20mA | | Viewing Angle [1] |
|-----------|---------------------------|--------------|------------------------|------|----------------------|
| | | | Min. | Typ. | 2θ1/2 |
| AM23SRD-F | Super Bright Red (GaAlAs) | Red Diffused | 55 | 90 | 170° |
| | | | *12 | *30 | |

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%.
- * Luminous intensity value is traceable to CIE127-2007 standards.

Electrical / Optical Characteristics at TA=25°C

| Symbol | Parameter | Emitting Color | Typ. | Max. | Units | Test Conditions |
|--------------------|--------------------------|------------------|------|------|-------|---------------------------|
| λ _{peak} | Peak Wavelength | Super Bright Red | 655 | | nm | I _F =20mA |
| λ _D [1] | Dominant Wavelength | Super Bright Red | 640 | | nm | I _F =20mA |
| Δλ _{1/2} | Spectral Line Half-width | Super Bright Red | 20 | | nm | I _F =20mA |
| C | Capacitance | Super Bright Red | 45 | | pF | V _F =0V;f=1MHz |
| V _F [2] | Forward Voltage | Super Bright Red | 1.85 | 2.5 | V | I _F =20mA |
| I _R | Reverse Current | Super Bright Red | | 10 | uA | V _R = 5V |

Notes:

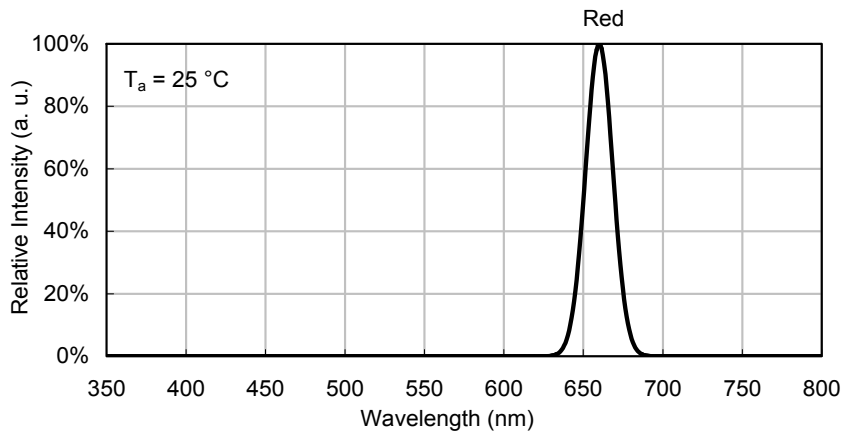
1. Wavelength: +/-1nm.
2. Forward Voltage: +/-0.1V.
3. Wavelength value is traceable to CIE127-2007 standards.
4. Excess driving current and / or operating temperature higher than recommended conditions may result in severe light degradation or premature failure.

Absolute Maximum Ratings at TA=25°C

| Parameter | Values | Units |
|--------------------------|----------------|-------|
| Power dissipation | 75 | mW |
| DC Forward Current | 30 | mA |
| Peak Forward Current [1] | 155 | mA |
| Reverse Voltage | 5 | V |
| Operating Temperature | -40°C To +85°C | |
| Storage Temperature | -40°C To +85°C | |

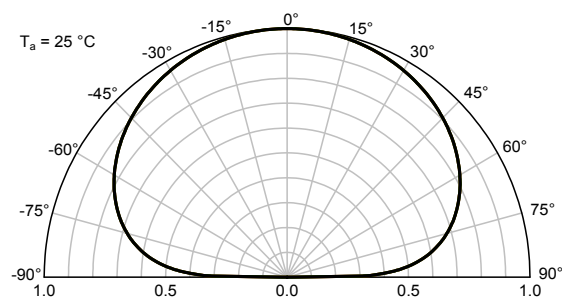
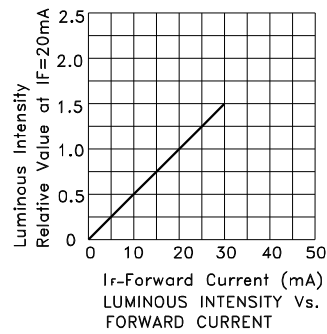
Notes:

1. 1/10 Duty Cycle, 0.1ms Pulse Width.
2. Relative humidity levels maintained between 40% and 60% in production area are recommended to avoid the build-up of static electricity – Ref JEDEC/JESD625-A and JEDEC/J-STD-033.

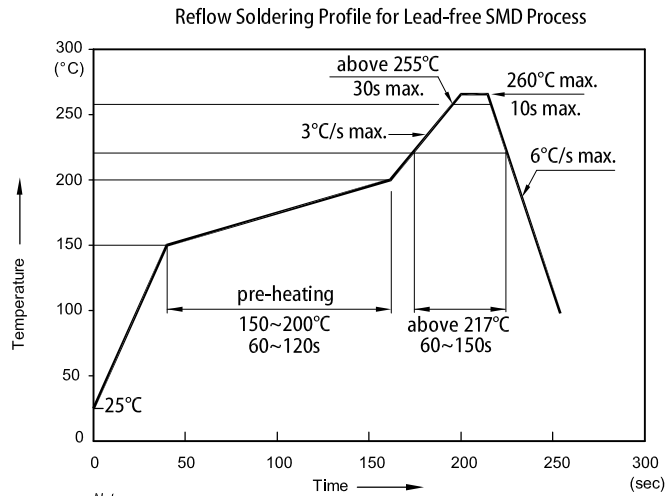


Super Bright Red

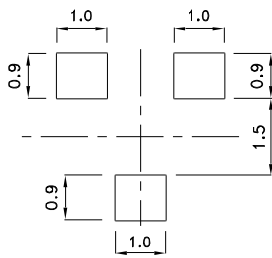
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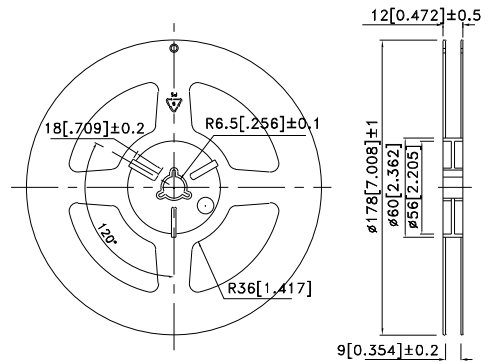
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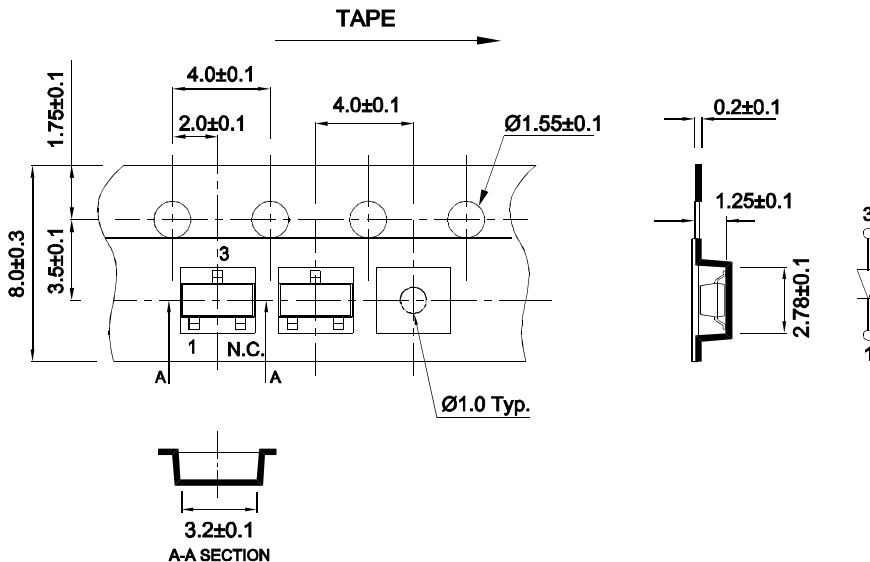
Recommended Soldering Pattern (Units : mm; Tolerance: ± 0.1)



Reel Dimension

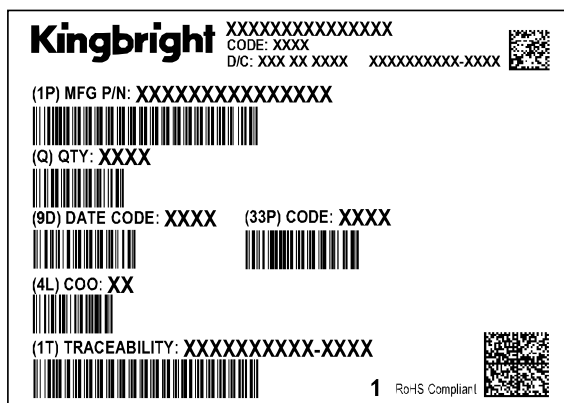
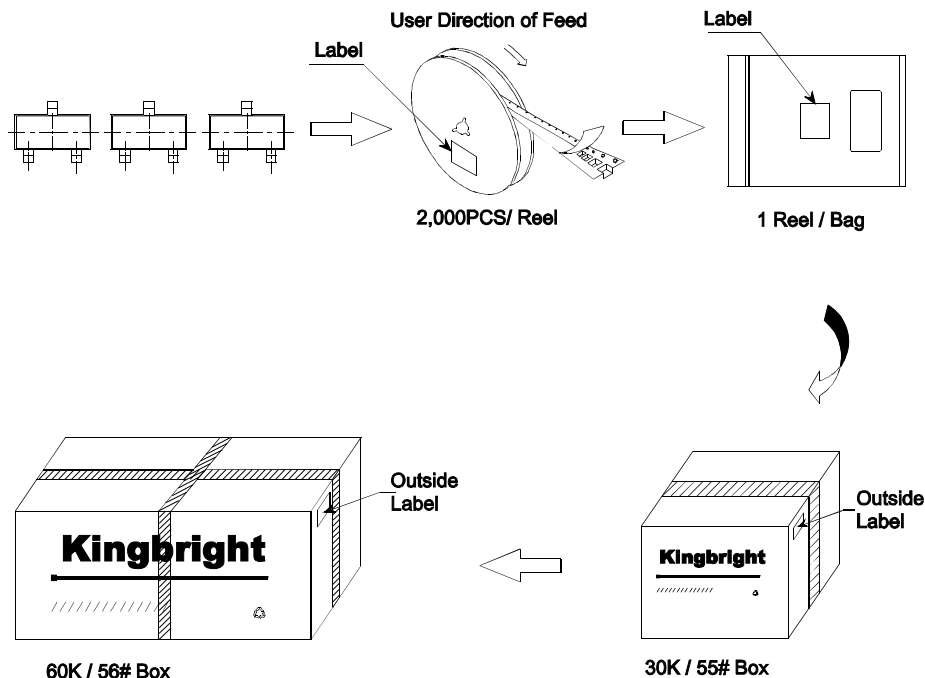


Tape Dimensions (Units : mm)



PACKING & LABEL SPECIFICATIONS

AM23SRD-F



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