

PRELIMINARY SPEC

Part Number: AM23SRC-F-RV

Super Bright Red

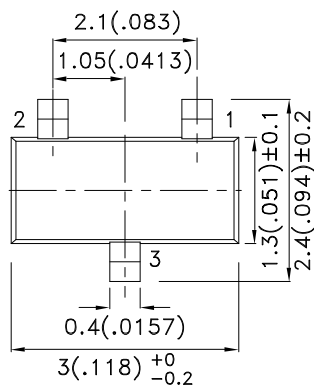
### Features

- 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.

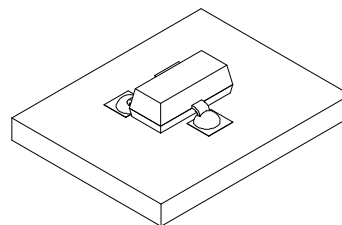
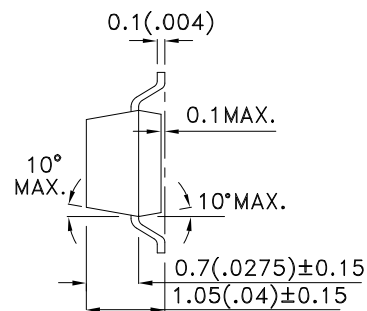
### Description

The Super Bright Red source color devices are made with Gallium Aluminum Arsenide Red 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                |
| AM23SRC-F-RV | Super Bright Red (GaAlAs) | WATER CLEAR | 36                     | 90   | 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 Red | 660  |      | nm    | IF=20mA         |
| λD [1] | Dominant Wavelength      | Super Bright Red | 640  |      | nm    | IF=20mA         |
| Δλ1/2  | Spectral Line Half-width | Super Bright Red | 20   |      | nm    | IF=20mA         |
| C      | Capacitance              | Super Bright Red | 45   |      | pF    | VF=0V;f=1MHz    |
| VF [2] | Forward Voltage          | Super Bright Red | 1.85 | 2.5  | V     | IF=20mA         |
| IR     | Reverse Current          | Super Bright Red |      | 10   | uA    | VR=5V           |

Notes:

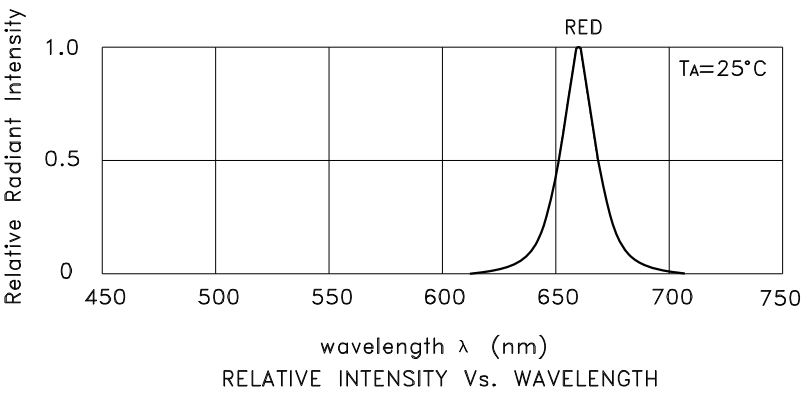
- 1.Wavelength: +/-1nm.
2. Forward Voltage: +/-0.1V.

## Absolute Maximum Ratings at TA=25°C

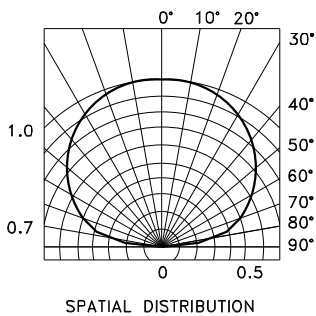
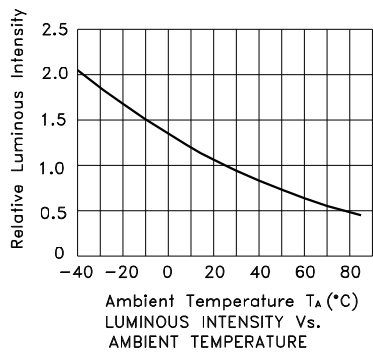
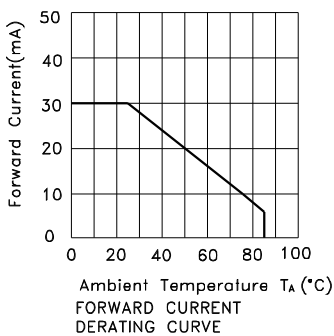
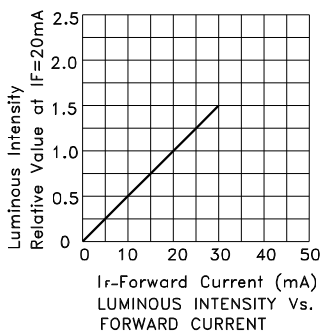
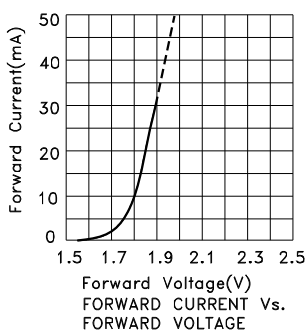
| Parameter                | Super Bright Red | Units |
|--------------------------|------------------|-------|
| Power dissipation        | 75               | mW    |
| DC Forward Current       | 30               | mA    |
| Peak Forward Current [1] | 155              | mA    |
| Reverse Voltage   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

Note:

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



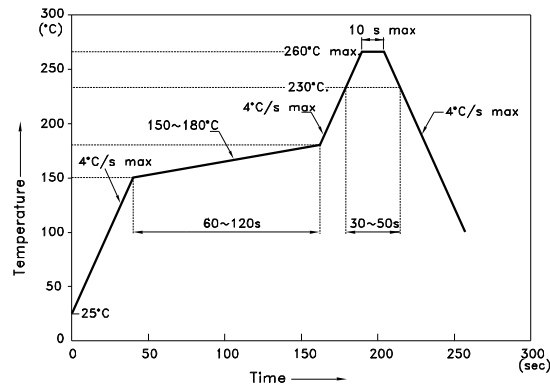
Super Bright Red AM23SRC-F-RV



## AM23SRC-F-RV

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.

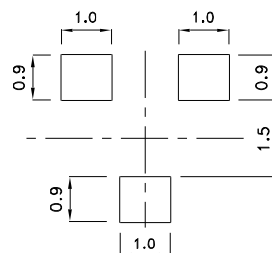
Reflow Soldering Profile For Lead-free SMT Process.



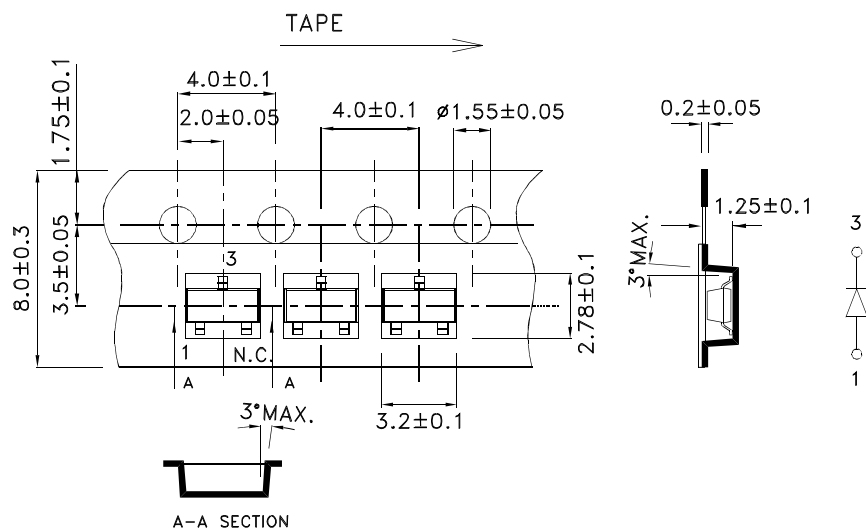
### NOTES:

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

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

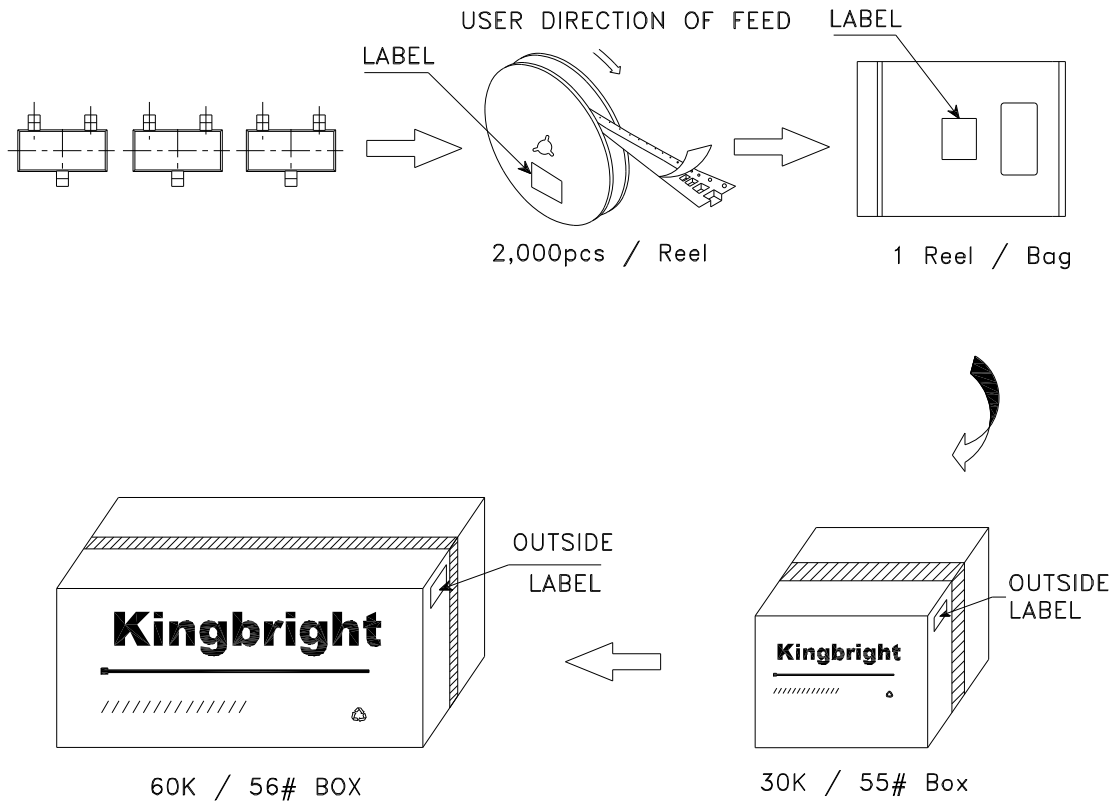


## Tape Dimensions (Units : mm)



PACKING & LABEL SPECIFICATIONS

AM23SRC-F-RV



|                                                                                                                      |                                               |
|----------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|
| <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>xxxxxxxxxxxxxxxxxxxxxxxxxxxx |                                               |
| RoHS Compliant                                                                                                       |                                               |

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