

Kingbright

SUBMINIATURE SOLID STATE LAMP

Part Number: AM27SRC03

Super Bright Red

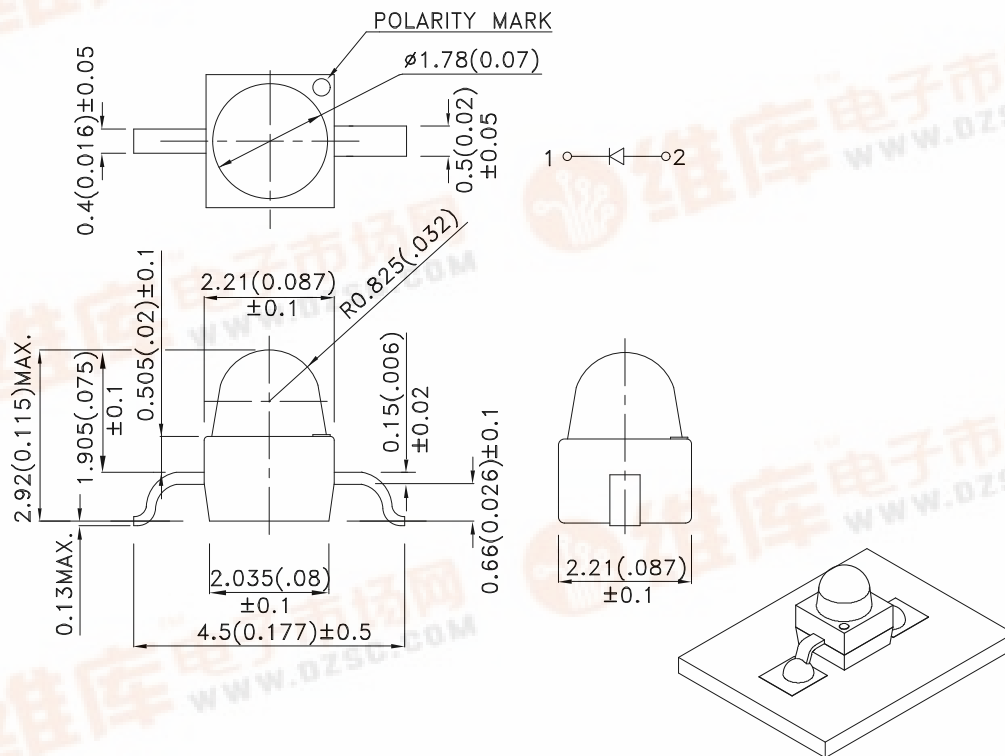
Features

- SUBMINIATURE PACKAGE.
- GULL WING.
- LONG LIFE - SOLID STATE RELIABILITY.
- LOW PACKAGE PROFILE.
- PACKAGE :1000PCS / 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



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 leads 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] @ 20mA		Viewing Angle [1]
			Min.	Typ.	2θ1/2
AM27SRC03	Super Bright Red (GaAlAs)	WATER CLEAR	110	600	20°

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
λ_{peak}	Peak Wavelength	Super Bright Red	660		nm	I _F =20mA
λ_D [1]	Dominant Wavelength	Super Bright Red	640		nm	I _F =20mA
$\Delta\lambda_{1/2}$	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:

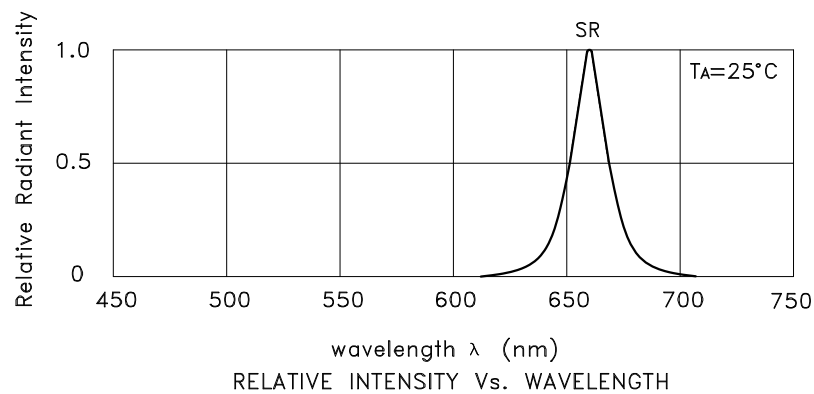
1. Wavelength: +/-1nm.
2. Forward Voltage: +/-0.1V.

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	

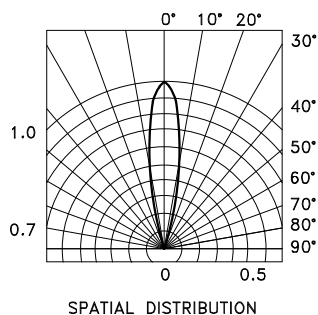
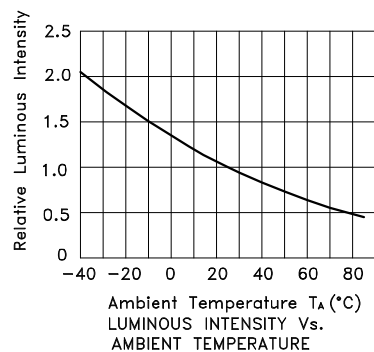
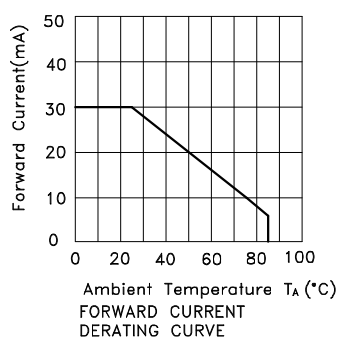
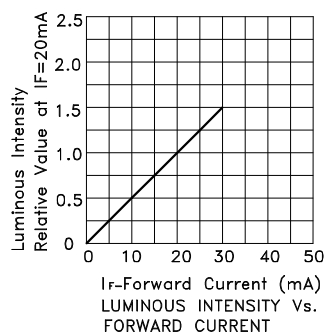
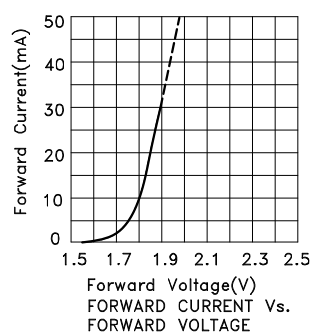
Note:

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



Super Bright Red

AM27SRC03



The graph illustrates the temperature profile of the furnace during the heat treatment of the specimen. The Y-axis represents Temperature in degrees Celsius (°C), ranging from 0 to 300. The X-axis represents Time in seconds (sec), ranging from 0 to 300. The profile starts at 25°C, rises at 4°C/s to 150°C (40s), then to 180°C (60-120s), then to 230°C (4°C/s max), then to 260°C (10s max), and finally cools at 4°C/s.

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.

Technical drawing of a mechanical part showing dimensions. The part has a total width of 6.2 (1.6 + 3.0 + 1.6) and a height of 1.5. It features a central vertical slot and two side rectangular features.

Technical drawing of a tape with dimensions and a cross-section A-A.

Top View Dimensions:

- Total width: 12 ± 0.2
- Distance from top edge to center line: 5.5 ± 0.05
- Distance from center line to edge: 1.75 ± 0.1
- Distance between center lines of holes: 4.0 ± 0.05
- Distance between center lines of holes (with tolerance): 2 ± 0.05
- Distance between center lines of holes (with tolerance): 4.0 ± 0.1
- Hole diameter: $\phi 1.5 \pm \begin{smallmatrix} 0.1 \\ -0.0 \end{smallmatrix}$

Section A-A Dimensions:

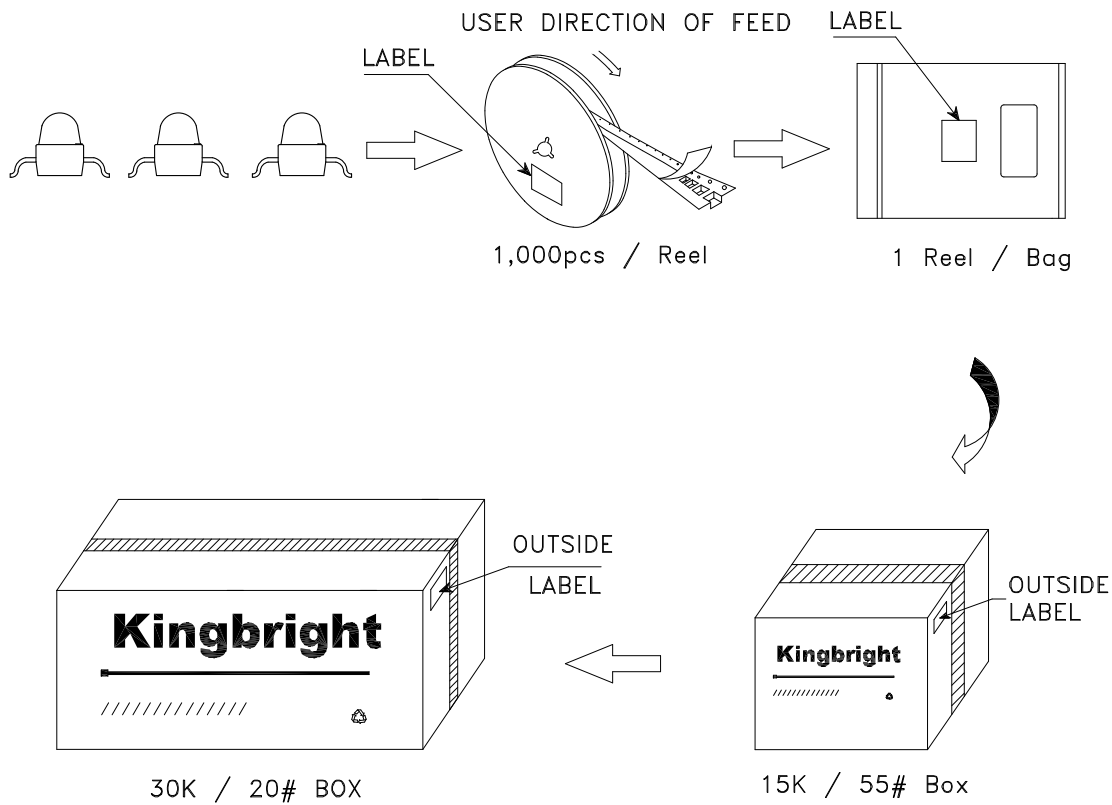
- Top flange thickness: 0.3 ± 0.05
- Distance from top flange to bottom flange: 3.05 ± 0.1
- Bottom flange thickness: 2.7 ± 0.1
- Distance from bottom flange to center line: 5.3 ± 0.1
- Angle of bottom flange: 5° MAX.
- Angle of top flange: 5° MAX.

Section A-A Dimensions (Bottom View):

- Distance from bottom edge to center line: 2.2 ± 0.1
- Distance from bottom edge to center line: 0.8 ± 0.1
- Angle of bottom flange: 5° MAX.
- Angle of top flange: 5° MAX.

PACKING & LABEL SPECIFICATIONS

AM27SRC03



Kingbright	
P/NO: AM27xxx03	
QTY: 1,000 pcs	Q.C. Q C xx xx xxxx PASSED
S/N: XXXX	
CODE: XXX	
LOT NO:	
 xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx	
RoHS Compliant	