

Part Number: APT2012SRCPRV

SUPER BRIGHT RED

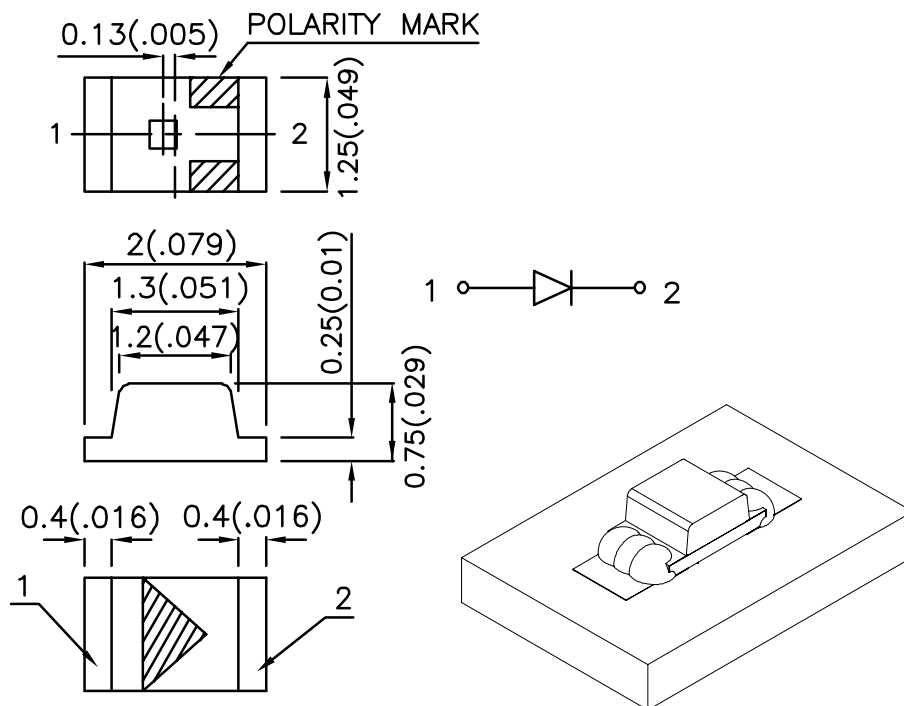
Features

- 2.0mmx1.25mm SMT LED,0.75mm THICKNESS.
- LOW POWER CONSUMPTION.
- WIDE VIEWING ANGLE.
- IDEAL FOR BACKLIGHT AND INDICATOR.
- VARIOUS COLORS AND LENS TYPES AVAILABLE.
- 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



Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is $\pm 0.1(0.004)$ unless otherwise noted.
3. Specifications are subject to change without notice.
4. 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 |
| APT2012SRCPRV | SUPER BRIGHT RED (GaAlAs) | WATER CLEAR | 36 | 100 | 120° |

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 | IF=20mA |
| λ_D [1] | Dominant Wavelength | Super Bright Red | 640 | | nm | IF=20mA |
| $\Delta\lambda_{1/2}$ | 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:

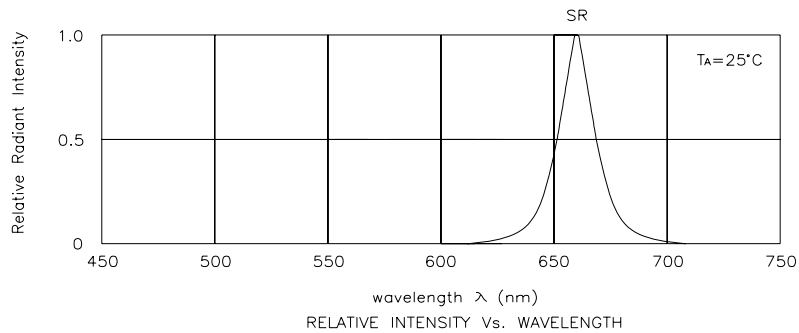
1. Wavelength: +/-1nm.
2. Forward Voltage: +/-0.1V.

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 / Storage Temperature | -40°C To +85°C | |

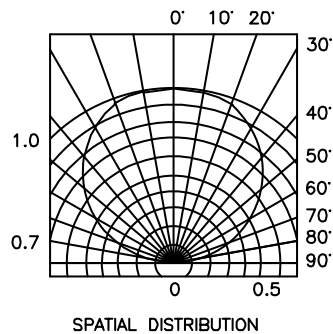
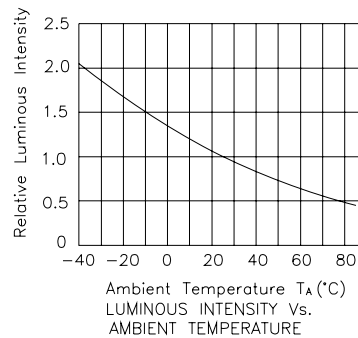
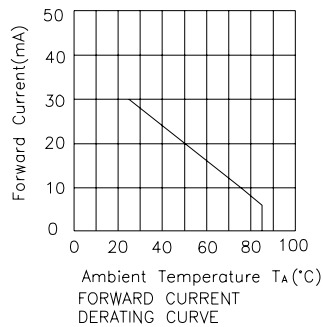
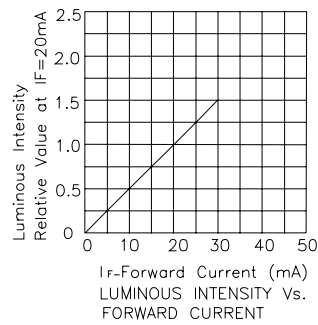
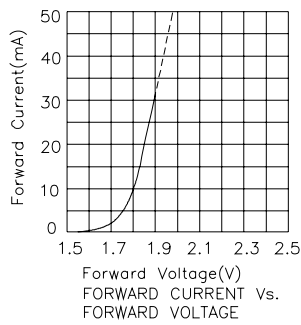
Note:

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



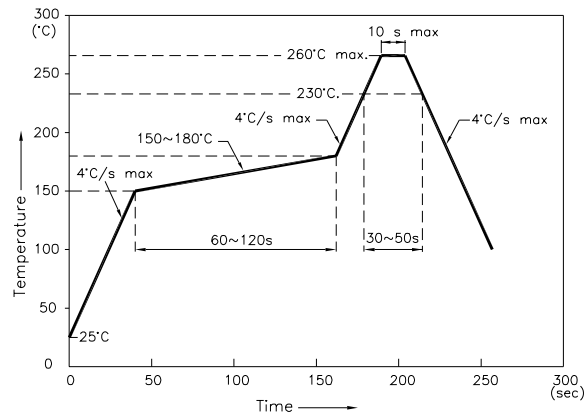
Super Bright Red

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Reflow Soldering Profile For Lead-free SMT Process.

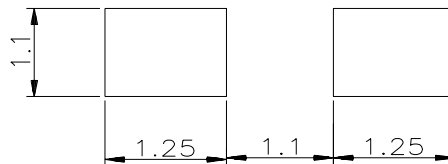


NOTES:

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.

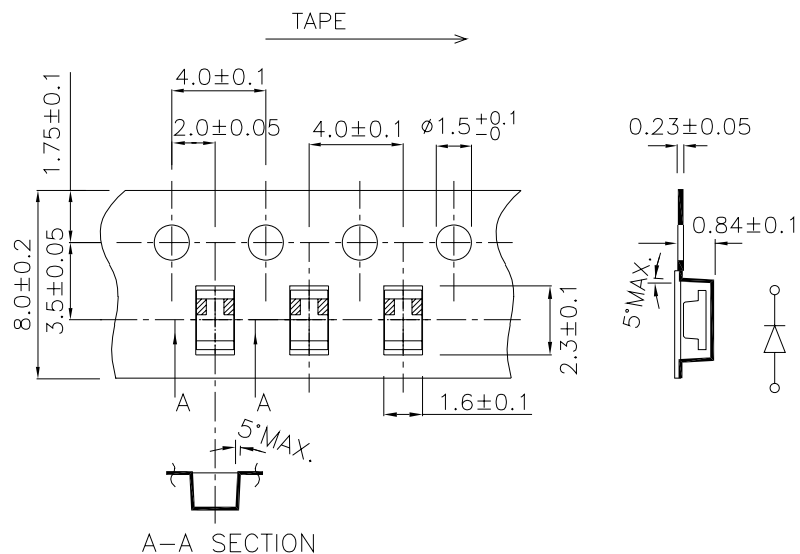
Recommended Soldering Pattern

(Units : mm; Tolerance: ± 0.1)



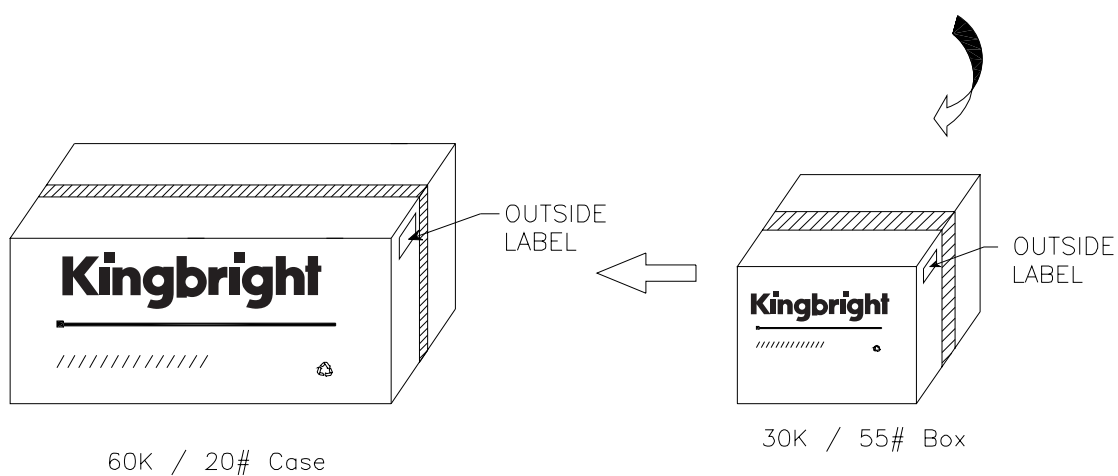
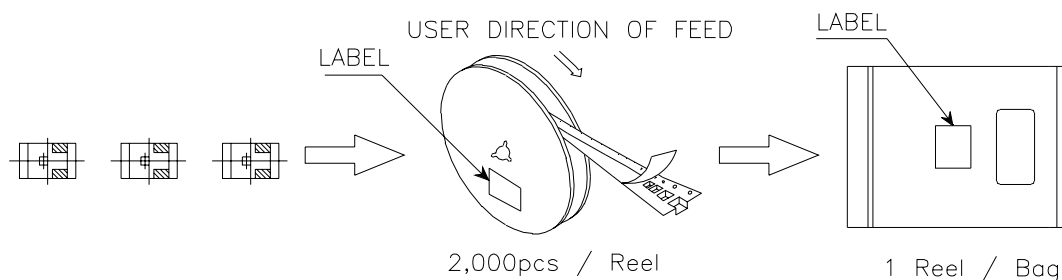
Tape Specifications


(Units : mm)



PACKING & LABEL SPECIFICATIONS

APT2012SRCPRV



| | |
|--|---|
| Kingbright | |
| P/N: APT2012XXX | |
| QTY: 2,000 pcs | Q.C. Q.C. xx-xx-xxxx PASSED |
| S/N: XXXX | |
| CODE: XXX | |
| LOT NO: | |
|  | |
| MADE IN CHINA | RoHS Compliant |