

PRELIMINARY SPEC

Part Number: AA3529SES/L

RED-ORANGE

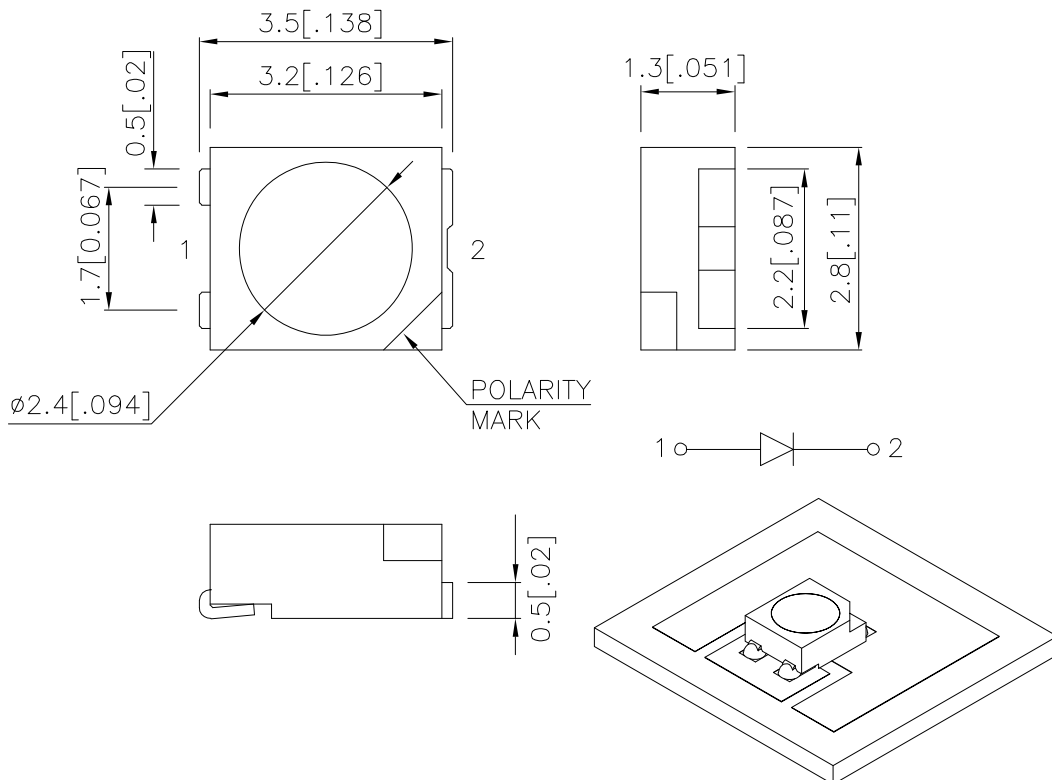
### Features

- SINGLE COLOR.
- SUITABLE FOR ALL SMT ASSEMBLY AND SOLDER PROCESS.
- AVAILABLE ON TAPE AND REEL.
- IDEAL FOR BACKLIGHTING.
- WHITE SMD PACKAGE, SILICONE RESIN.
- LOW THERMAL RESISTANCE.
- PACKAGE: 1500PCS / REEL.
- MOISTURE SENSITIVITY LEVEL : LEVEL 2a.
- RoHS COMPLIANT.

### Description

The Red-orange device is made with TS AlInGaP 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. Specifications are subject to change without notice.
4. The device has a single mounting surface. The device must be mounted according to the specifications.

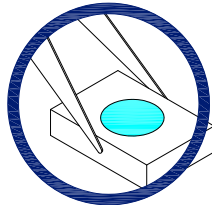


## Handling Precautions

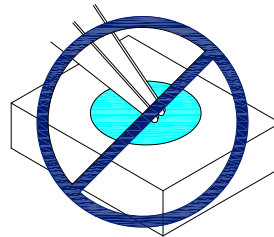
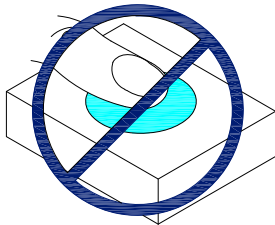
Compare to epoxy encapsulant that is hard and brittle, silicone is softer and flexible. Although its characteristic significantly reduces thermal stress, it is more susceptible to damage by external mechanical force.

As a result, special handling precautions need to be observed during assembly using silicone encapsulated LED products. Failure to comply might leads to damage and premature failure of the LED.

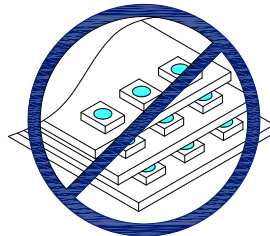
1. Handle the component along the side surfaces by using forceps or appropriate tools.



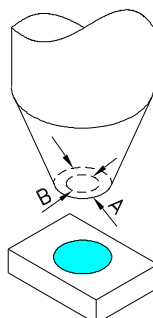
2. Do not directly touch or handle the silicone lens surface. It may damage the internal circuitry.



3. Do not stack together assembled PCBs containing exposed LEDs. Outside impact may scratch the silicone lens or damage the internal circuitry.



4. The outer diameter of the SMD pickup nozzle should not exceed the size of the LED to prevent air leaks. The inner diameter of the nozzle should be as large as possible.
5. A pliable material is suggested for the nozzle tip to avoid scratching or damaging the LED surface during pickup.
6. The dimensions of the component must be accurately programmed in the pick-and-place machine to insure precise pickup and avoid damage during production.



## Selection Guide

| Part No.    | Dice                 | Lens Type   | Iv (mcd) [2]<br>@ 150mA |      | Φv (mlm) [2]<br>@ 150mA |      | Viewing<br>Angle [1] |
|-------------|----------------------|-------------|-------------------------|------|-------------------------|------|----------------------|
|             |                      |             | Min.                    | Typ. | Min.                    | Typ. | 2θ1/2                |
| AA3529SES/L | RED-ORANGE (AlInGaP) | WATER CLEAR | 3800                    | 6000 | 2500                    | 4000 | 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 |
|--------|--------------------------|------------|------|------|-------|-----------------|
| λpeak  | Peak Wavelength          | Red-orange | 626  |      | nm    | IF=150mA        |
| λD [1] | Dominant Wavelength      | Red-orange | 618  |      | nm    | IF=150mA        |
| Δλ1/2  | Spectral Line Half-width | Red-orange | 20   |      | nm    | IF=150mA        |
| C      | Capacitance              | Red-orange | 25   |      | pF    | VF=0V;f=1MHz    |
| VF [2] | Forward Voltage          | Red-orange | 2.9  | 3.5  | V     | IF=150mA        |
| IR     | Reverse Current          | Red-orange |      | 10   | uA    | VR = 5V         |

Notes:

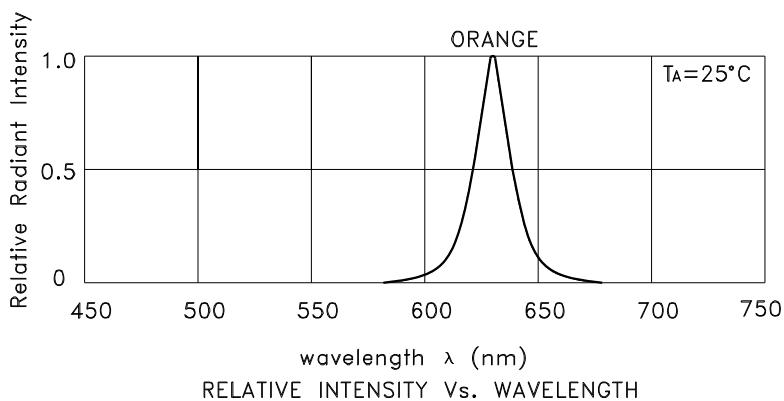
1. Wavelength: +/-1nm.
2. Forward Voltage: +/-0.1V.

## Absolute Maximum Ratings at TA=25°C

| Parameter                       | Red-orange     | Units |
|---------------------------------|----------------|-------|
| Power dissipation               | 525            | mW    |
| DC Forward Current              | 150            | mA    |
| Peak Forward Current [1]        | 350            | mA    |
| Reverse Voltage                 | 5              | V     |
| Operating / Storage Temperature | -40°C To +85°C |       |

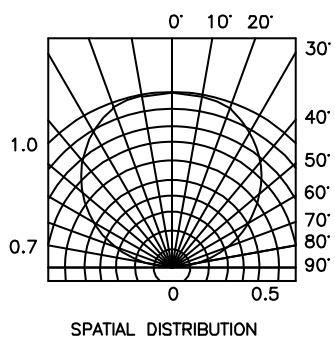
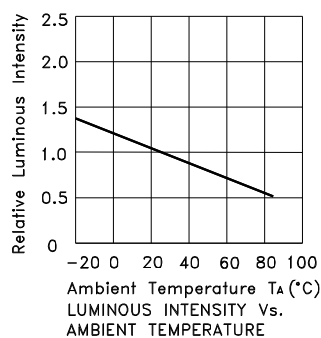
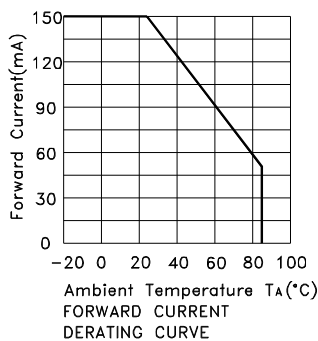
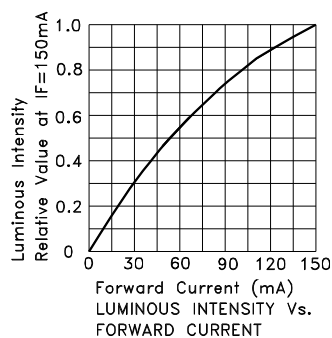
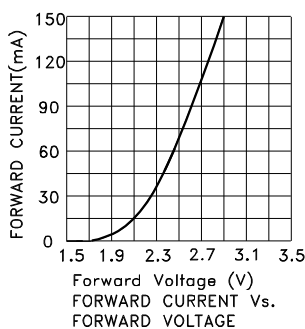
Note:

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



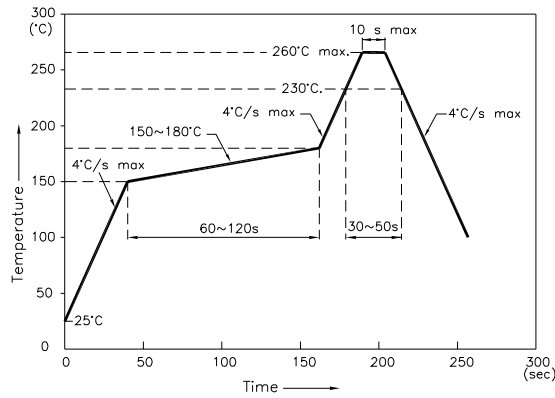
## Red-orange

## AA3529SES/L



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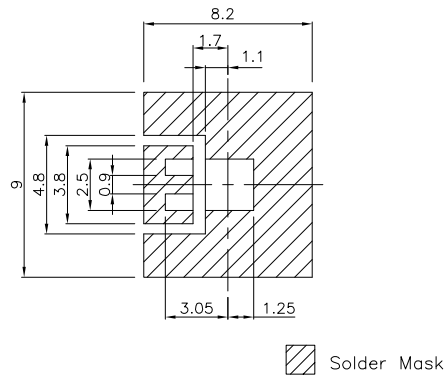
Reflow Soldering Profile For Lead-free SMT Process.



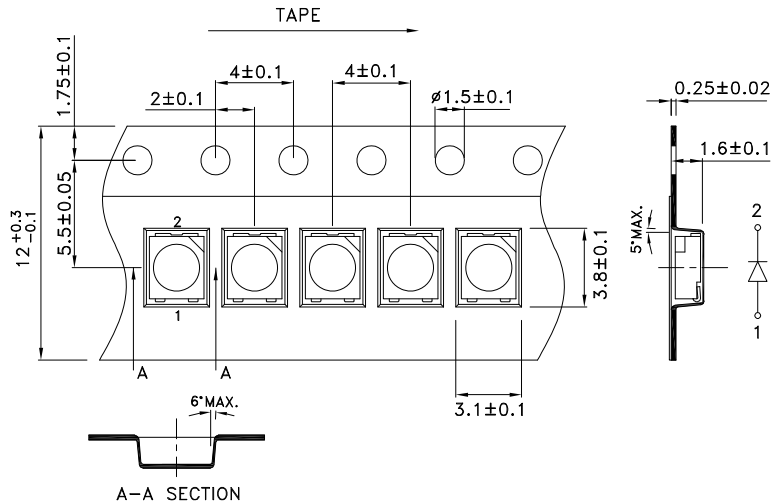
**NOTES:**

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)



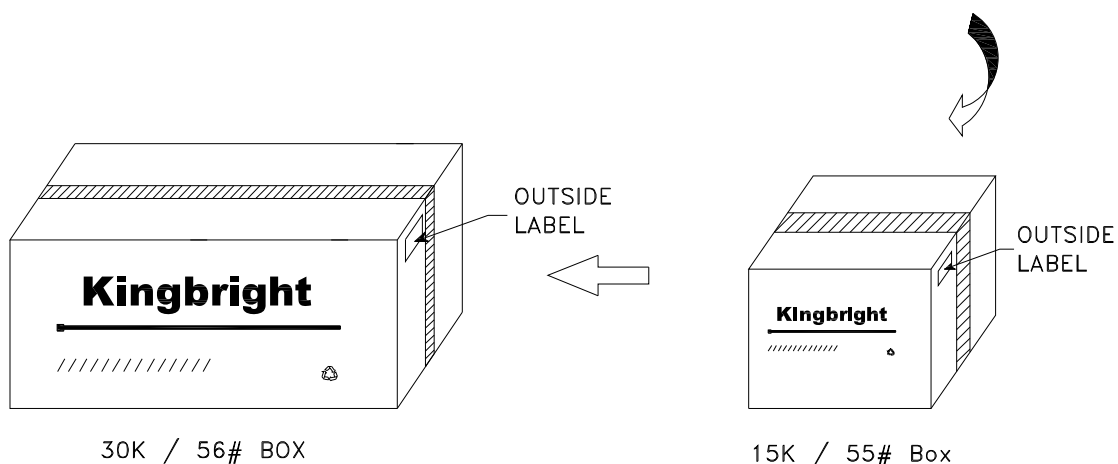
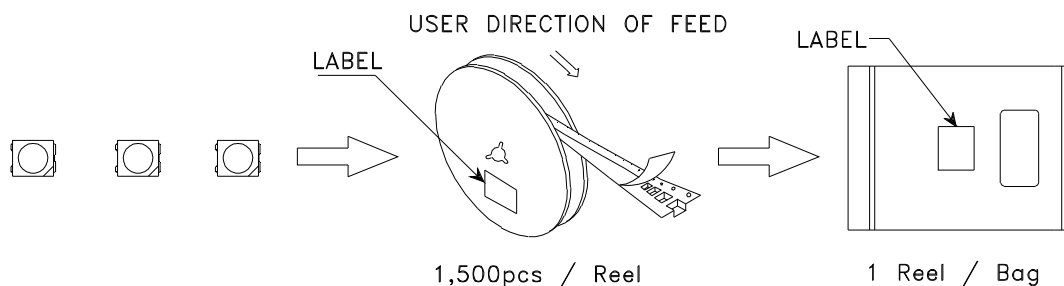
### Tape Specifications (Units : mm)




# Kingbright

## PACKING & LABEL SPECIFICATIONS

AA3529SES/L



|  |   |
|--|---|
| <h1>Kingbright</h1>  |   |
| P/NO: AA3529XXX  |   |
| QTY: 1,500 pcs   | Q.C. <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">QC<br/>xx xx xxxx<br/>PASSED</span> |
| S/N: XXXX  |   |
| CODE: XXX  |   |
| LOT NO:  |   |
| <br>xxxxxxxxxxxxxxxxxxxxxxxxxxxx |   |
| RoHS Compliant   |   |