

# Kingbright

## SURFACE MOUNT DISPLAY

### PRELIMINARY SPEC

Part Number: ACSC08-51SYKWA

Super Bright Yellow

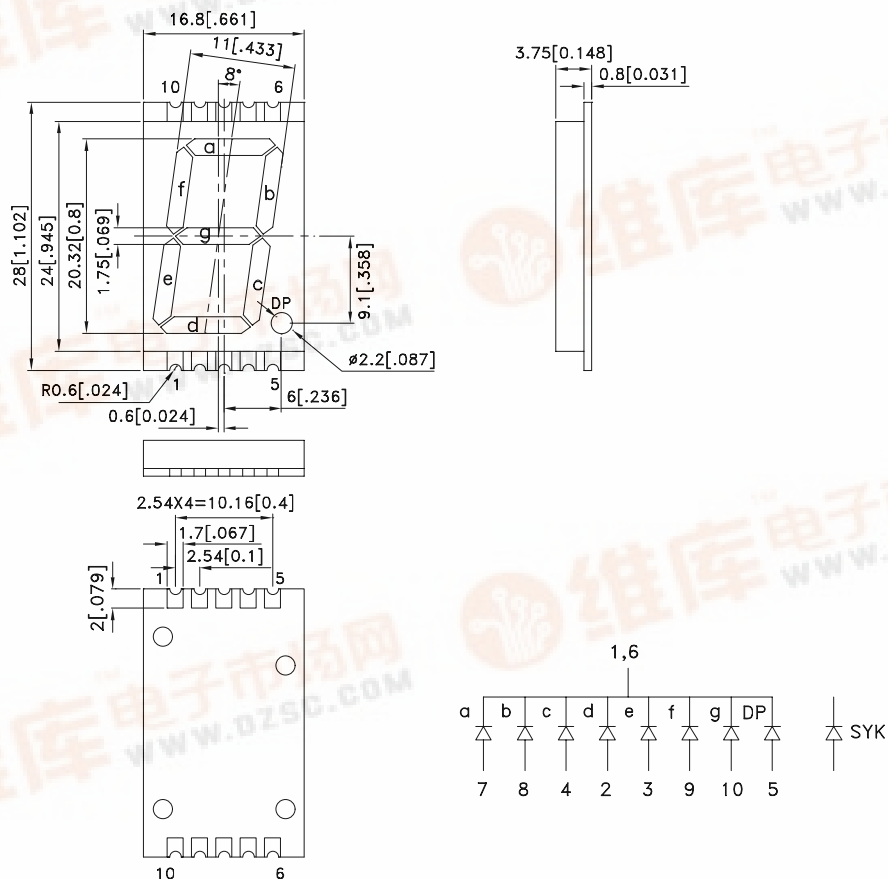
### Features

- 0.8INCH DIGIT HEIGHT.
- LOW CURRENT OPERATION.
- EXCELLENT CHARACTER APPEARANCE.
- I.C. COMPATIBLE
- MECHANICALLY RUGGED.
- GRAY FACE,WHITE SEGMENT.
- PACKAGE: 200PCS/ REEL
- MOISTURE SENSITIVITY LEVEL : LEVEL 4.
- RoHS COMPLIANT.

### Description

The Super Bright Yellow device is made with InGaAlP (on GaAs substrate) light emitting diode chip.

### Package Dimensions& Internal Circuit Diagram



#### Notes:

1. All dimensions are in millimeters (inches). Tolerance is  $\pm 0.25(0.01")$  unless otherwise noted.
2. Specifications are subject to change without notice.
3. The gap between the reflector and PCB shall not exceed 0.25mm.



## Selection Guide

| Part No.       | Dice                          | Lens Type      | Iv (ucd) [1]<br>@ 10mA |       | Description                       |
|----------------|-------------------------------|----------------|------------------------|-------|-----------------------------------|
|                |                               |                | Min.                   | Typ.  |                                   |
| ACSC08-51SYKWA | Super Bright Yellow (InGaAlP) | WHITE DIFFUSED | 12000                  | 65000 | Common Cathode, Rt. Hand Decimal. |

Note:

1. Luminous intensity/ luminous Flux: +/-15%.

## Electrical / Optical Characteristics at TA=25°C

| Symbol                | Parameter                | Device              | Typ. | Max. | Units | Test Conditions           |
|-----------------------|--------------------------|---------------------|------|------|-------|---------------------------|
| $\lambda_{peak}$      | Peak Wavelength          | Super Bright Yellow | 590  |      | nm    | I <sub>F</sub> =20mA      |
| $\lambda_D$ [1]       | Dominant Wavelength      | Super Bright Yellow | 590  |      | nm    | I <sub>F</sub> =20mA      |
| $\Delta\lambda_{1/2}$ | Spectral Line Half-width | Super Bright Yellow | 20   |      | nm    | I <sub>F</sub> =20mA      |
| C                     | Capacitance              | Super Bright Yellow | 20   |      | pF    | V <sub>F</sub> =0V;f=1MHz |
| V <sub>F</sub> [2]    | Forward Voltage          | Super Bright Yellow | 2.0  | 2.5  | V     | I <sub>F</sub> =20mA      |
| I <sub>R</sub>        | Reverse Current          | Super Bright Yellow |      | 10   | uA    | V <sub>R</sub> =5V        |

Notes:

1.Wavelength: +/-1nm.

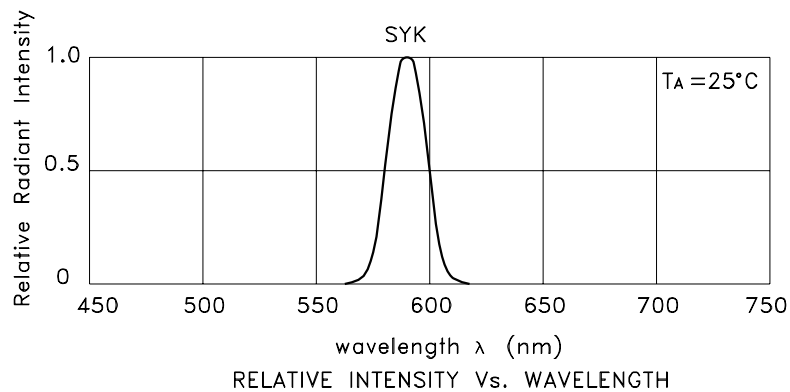
2. Forward Voltage: +/-0.1V.

## Absolute Maximum Ratings at TA=25°C

| Parameter                       | Super Bright Yellow | Units |
|---------------------------------|---------------------|-------|
| Power dissipation               | 75                  | mW    |
| DC Forward Current              | 30                  | mA    |
| Peak Forward Current [1]        | 175                 | mA    |
| Reverse Voltage                 | 5                   | V     |
| Operating / Storage Temperature | -40°C To +85°C      |       |

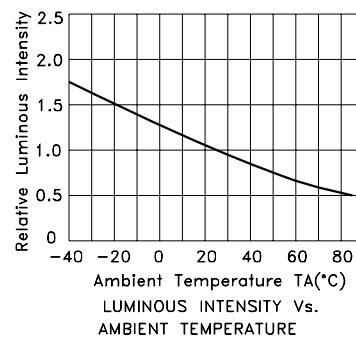
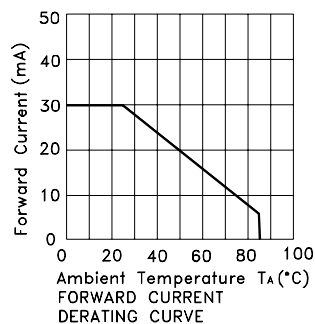
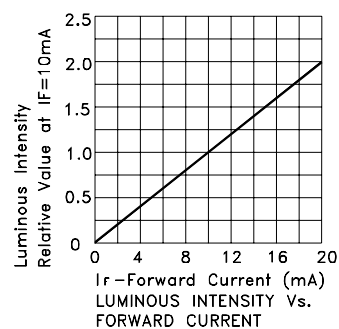
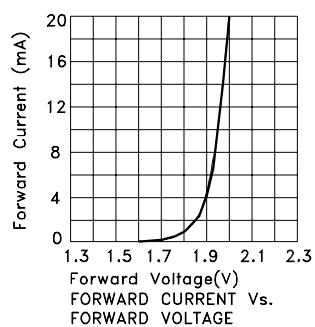
Note:

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



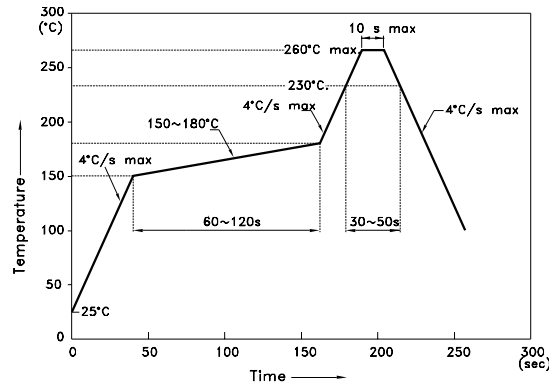
Super Bright Yellow

ACSC08-51SYKWA



## ACSC08-51SYKWA

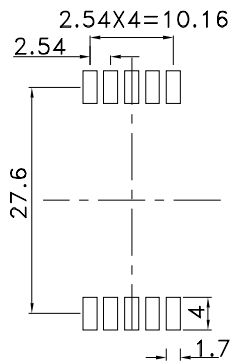
Reflow Soldering Profile For Lead-free SMT Process.



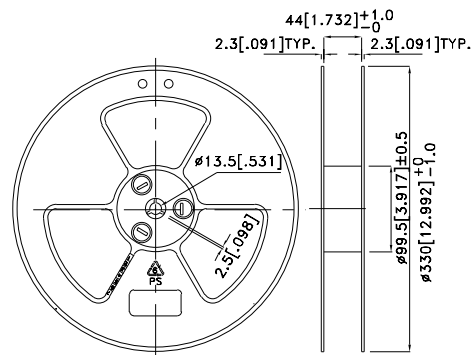
**NOTES:**

1. We recommend the reflow temperature  $245^{\circ}\text{C}(+/-5^{\circ}\text{C})$ . The maximum soldering temperature should be limited to  $260^{\circ}\text{C}$ .
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.

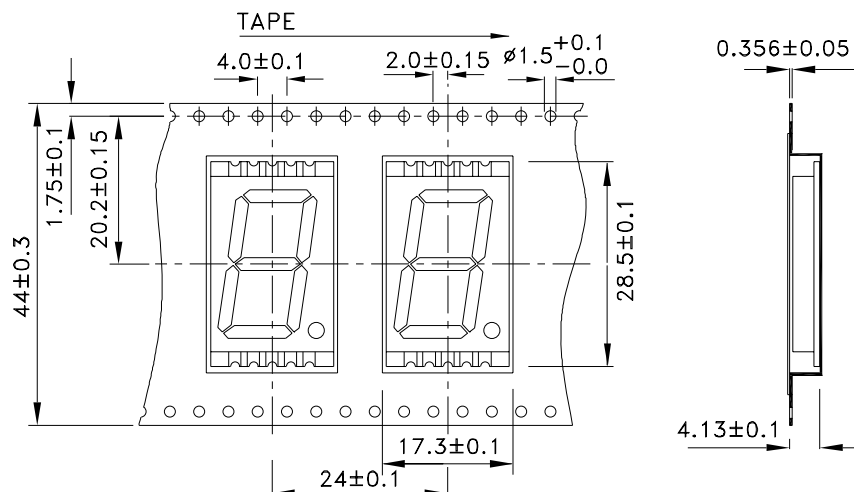
### Recommended Soldering Pattern (Units : mm; Tolerance: $\pm 0.15$ )



### Reel Dimension

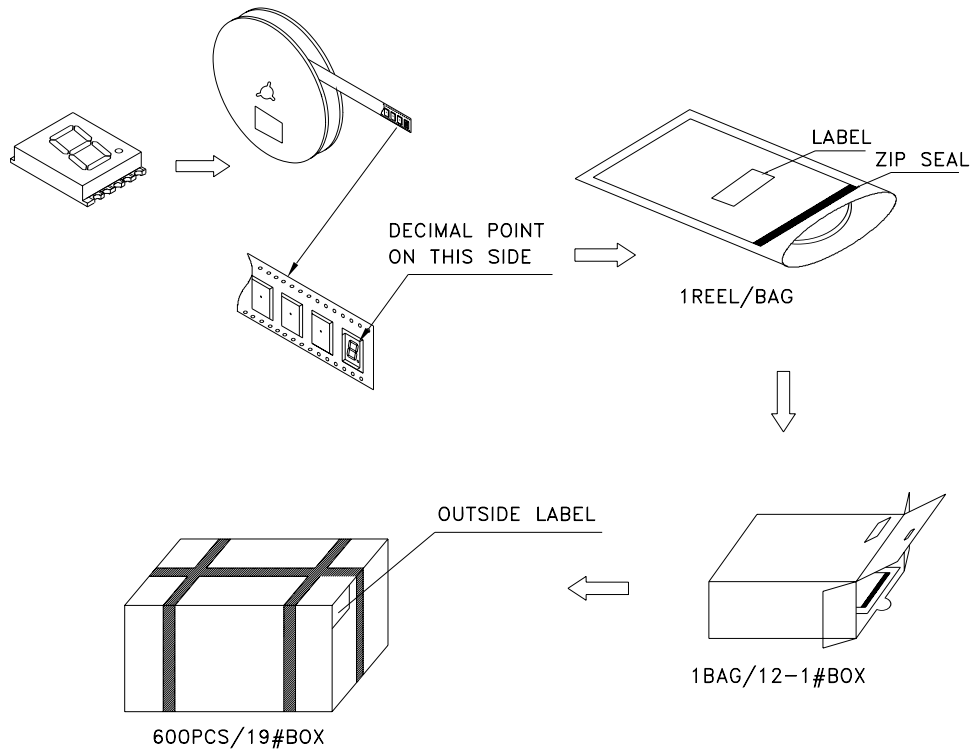


### Tape Specifications (Units : mm)



## PACKING & LABEL SPECIFICATIONS

ACSC08-51SYKWA



Inside LABEL Paste On The Tape-pipe

|                   |                    |  |               |
|-------------------|--------------------|--|---------------|
| <b>Kingbright</b> | TYPE: ACSX08-51xxx |  | Date          |
| QTY: 200 PCS      | CODE: xx           |  | Number OF FQC |
| RoHs Compliant    |                    |  |               |
| LOT NO.           |                    |  |               |

Outside LABEL Paste On The BAG

|                |         |              |
|----------------|---------|--------------|
| ACSX08-51xxx   | 200 PCS | Number OF QA |
|                |         | Date         |
| RoHs Compliant |         |              |

Outside LABEL Paste On The 19#Box

|                |      |       |
|----------------|------|-------|
| BOX Number     | xxxx | XXX X |
| ACSX08-51xxx   | 600  | x     |
| Number OF QA   |      |       |
| Date           |      |       |
|                |      |       |
| RoHs Compliant |      |       |

Outside LABEL Paste On The 12-1#Box

|                |     |     |              |
|----------------|-----|-----|--------------|
| ACSX08-51xxx   | 200 | PCS | Number OF QA |
| X: XXX PCS     |     |     | Date         |
|                |     |     |              |
| RoHs Compliant |     |     |              |