

## Excellent Integrated System Limited

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[Kingbright](#)  
[ACSC04-41SEKWA-F01](#)

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# Kingbright

## SURFACE MOUNT DISPLAY

Part Number: ACSC04-41SEKWA-F01

Super Bright Orange

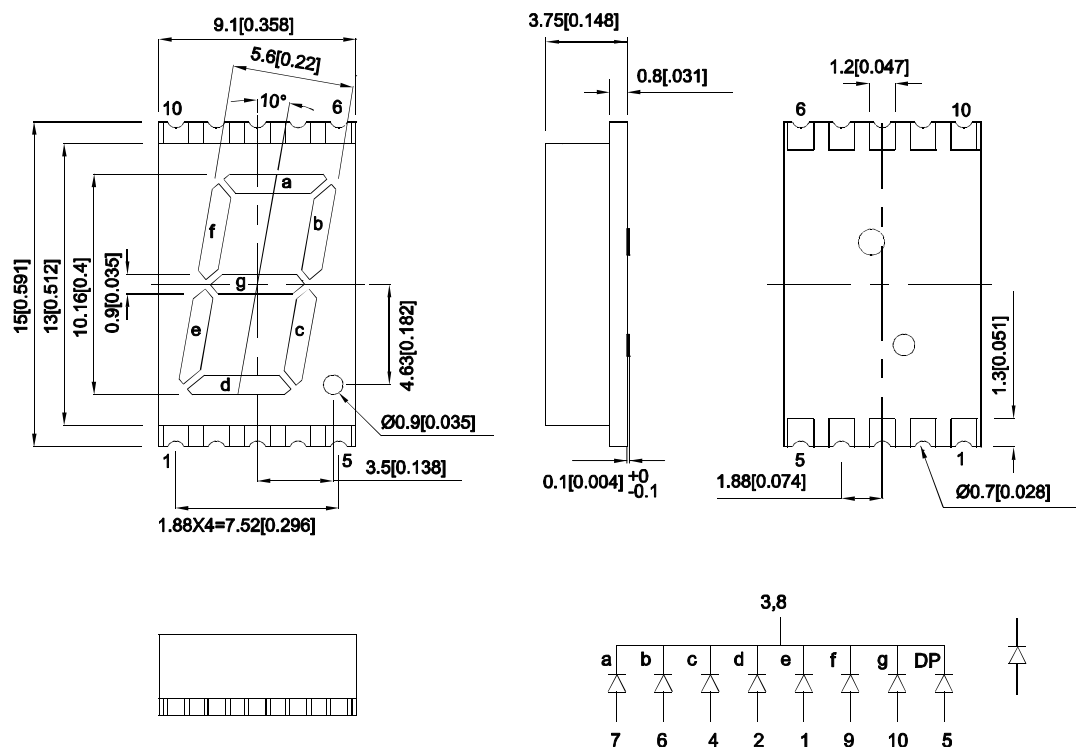
### Features

- 0.4 inch digit height.
- Low current operation.
- Excellent character appearance.
- Mechanically rugged.
- Gray face, white segment.
- Package: 400pcs/ reel.
- Moisture sensitivity level : level 2a.
- RoHS compliant.

### Description

The Super Bright Orange device is made with AlGaInP (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. The specifications, characteristics and technical data described in the datasheet are subject to change without prior notice.
3. The gap between the reflector and PCB shall not exceed 0.25mm.



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## Selection Guide

Part No.	Emitting Color (Material)	Lens Type	Iv (ucd) [1] @ 10mA		Description
			Min.	Typ.	
ACSC04-41SEKWA-F01	Super Bright Orange (AlGaInP)	White Diffused	21000	60000	Common Cathode, Rt. Hand Decimal.
			*9000	*15000	

### Notes:

1. Luminous intensity / luminous Flux: +/-15%.
- \* Luminous intensity value is traceable to the CIE127-2007 compliant national standards.

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

Symbol	Parameter	Emitting Color	Typ.	Max.	Units	Test Conditions
$\lambda_{peak}$	Peak Wavelength	Super Bright Orange	610		nm	I <sub>F</sub> =10mA
$\lambda_D$ [1]	Dominant Wavelength	Super Bright Orange	601		nm	I <sub>F</sub> =10mA
$\Delta\lambda_{1/2}$	Spectral Line Half-width	Super Bright Orange	29		nm	I <sub>F</sub> =10mA
C	Capacitance	Super Bright Orange	15		pF	V <sub>F</sub> =0V;f=1MHz
V <sub>F</sub> [2]	Forward Voltage	Super Bright Orange	2.0	2.5	V	I <sub>F</sub> =10mA
I <sub>R</sub>	Reverse Current	Super Bright Orange		10	uA	V <sub>R</sub> =5V

### Notes:

1. Wavelength: +/-1nm.
2. Forward Voltage: +/-0.1V.
3. Wavelength value is traceable to the CIE127-2007 compliant national standards.
4. Excess driving current and / or operating temperature higher than recommended conditions may result in severe light degradation or premature failure.

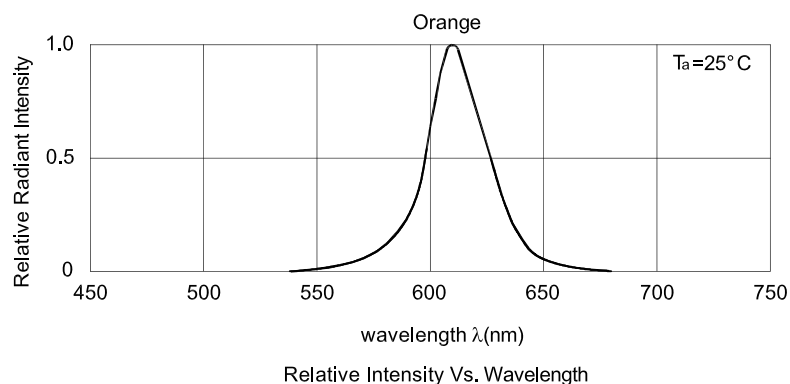
## Absolute Maximum Ratings at TA=25°C

Parameter	Values	Units
Power dissipation	75	mW
DC Forward Current	30	mA
Peak Forward Current [1]	195	mA
Reverse Voltage	5	V
Operating / Storage Temperature	-40°C To +85°C	

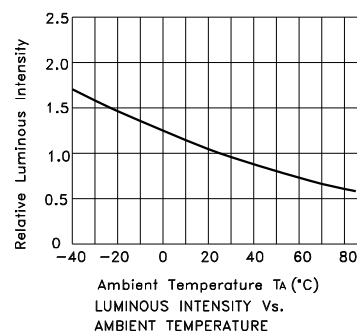
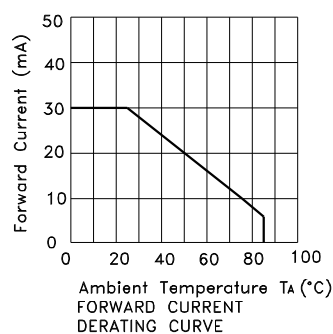
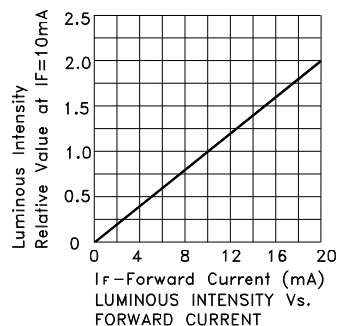
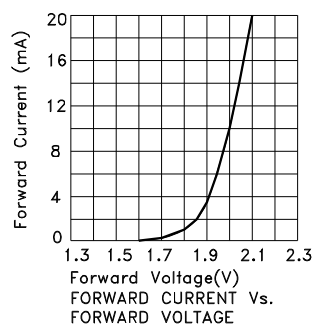
### Note:

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

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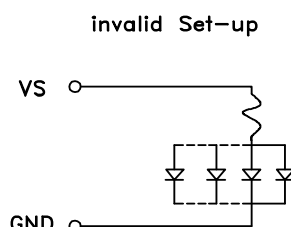
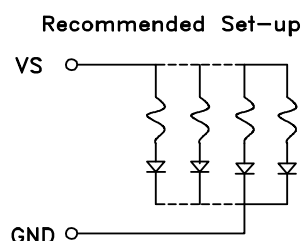


## Super Bright Orange ACSC04-41SEKWA-F01



## CIRCUIT DESIGN NOTES

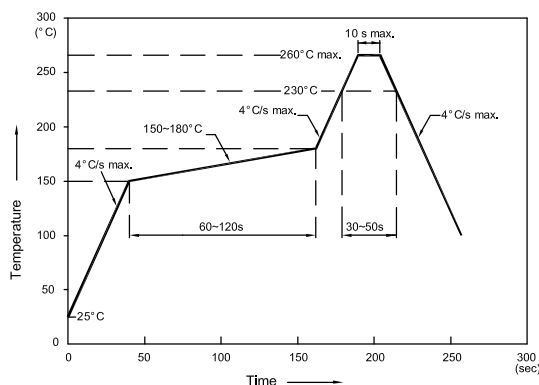
1. Protective current-limiting resistors may be necessary to operate the Displays.
2. LEDs mounted in parallel should each be placed in series with its own current-limiting resistor.



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**ACSC04-41SEKWA-F01**

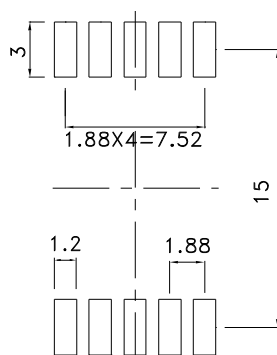
### Reflow Soldering Profile For Lead-free SMT Process.



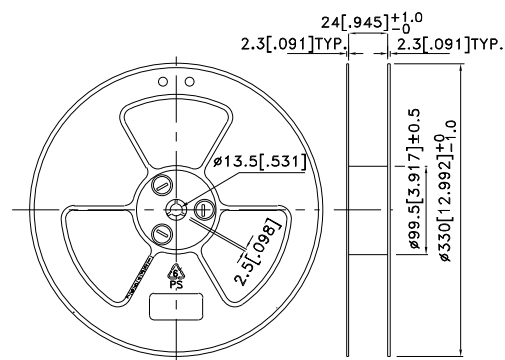
NOTES:

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.

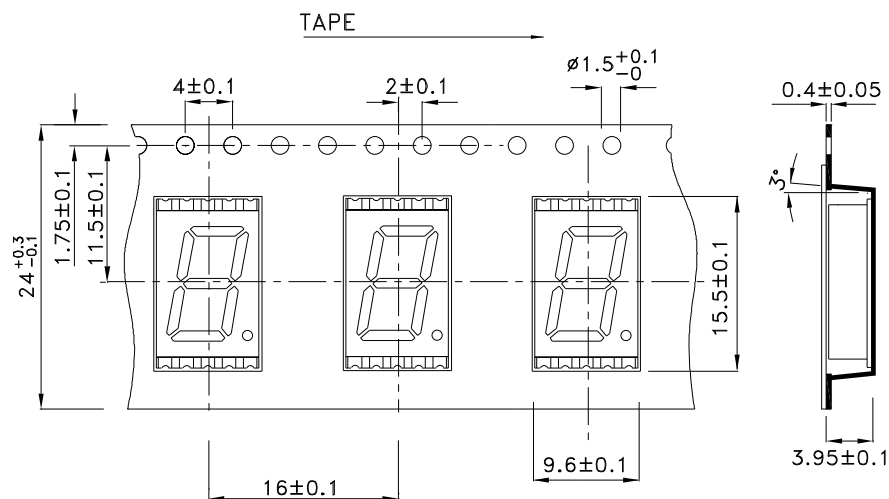
**Recommended Soldering Pattern**  
(Units : mm; Tolerance:  $\pm 0.15$ )



## Reel Dimension



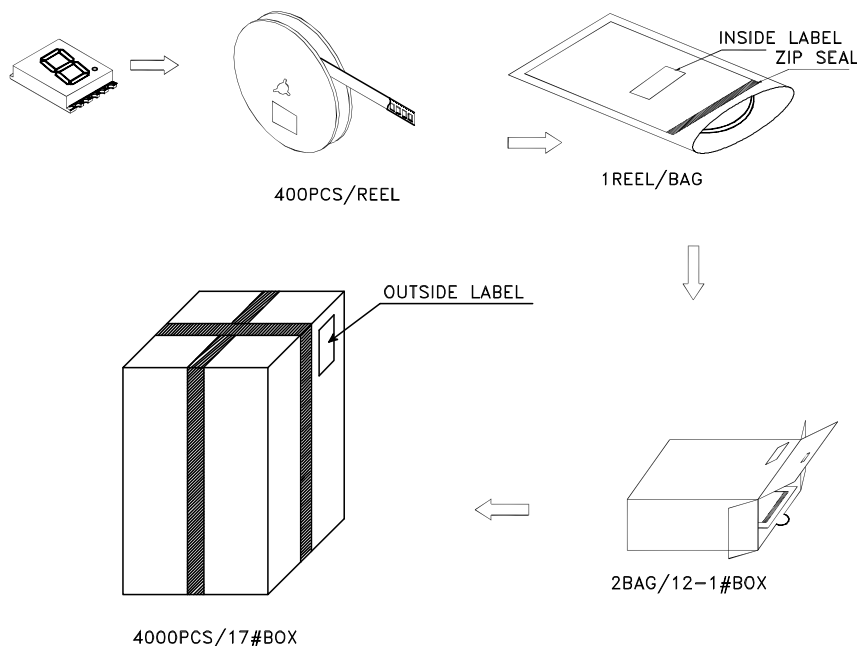
### Tape Specifications (Units : mm)



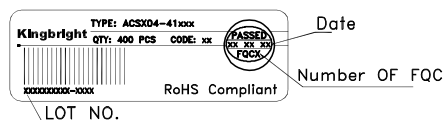
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## PACKING & LABEL SPECIFICATIONS

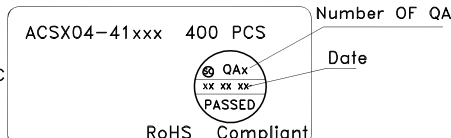
## ACSC04-41SEKWA-F01



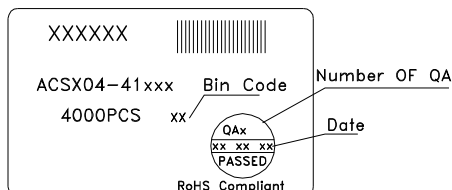
Inside Label On Tape



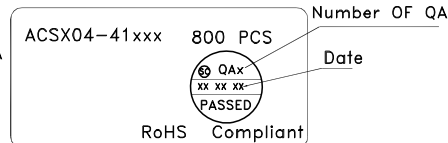
Outside Label On BAG



Outside Label On 17#Box



Outside Label On 12-1#Box



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