

### SURFACE MOUNT DISPLAY

Part Number: KCSC02-107

Super Bright Yellow

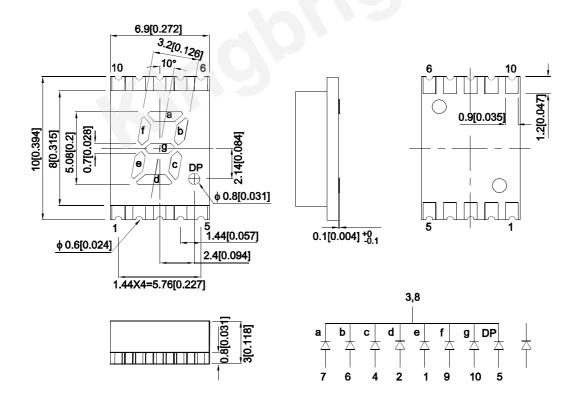
### **Features**

- 0.2inch digit height.
- Low current operation.
- Excellent character appearance.
- Mechanically rugged.
- Gray face, white segment.
- Package: 650pcs / reel.
- Moisture sensitivity level : level 2a.
- RoHS compliant.

### **Description**

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

### Package Dimensions& Internal Circuit Diagram







- 1. All dimensions are in millimeters (inches), Tolerance is ±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	lv (ucd) [1] @ 10mA		Description
			Min.	Тур.	
KCSC02-107	Super Bright Yellow (AlGaInP)	White Diffused	21000	50000	Common Cathode, Rt. Hand Decimal.
100002-107	Super Bright Fellow (AlGairii )	Willie Billuseu	*5600	*15000	

- Luminous intensity / luminous Flux: +/-15%.
   Luminous intensity value is traceable to CIE127-2007 standards.

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

	<u> </u>					
Symbol	Parameter	Emitting Color	Тур.	Max.	Units	Test Conditions
λpeak	Peak Wavelength	Super Bright Yellow	590		nm	IF=10mA
λD [1]	Dominant Wavelength	Super Bright Yellow	590		nm	IF=10mA
Δλ1/2	Spectral Line Half-width	Super Bright Yellow	20		nm	IF=10mA
С	Capacitance	Super Bright Yellow	20		pF	VF=0V;f=1MHz
VF [2]	Forward Voltage	Super Bright Yellow	1.95	2.5	V	IF=10mA
lr	Reverse Current	Super Bright Yellow		10	uA	V <sub>R</sub> =5V

### Notes:

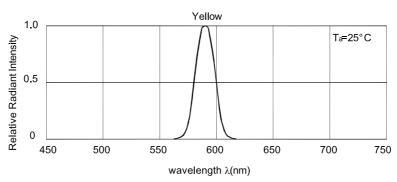
- Wavelength: +/-1nm.
   Forward Voltage: +/-0.1V.
   Wavelength value is traceable to CIE127-2007 standards.
- 4. Excess driving current and / or operating temperature higher than recommended conditions may result in severe light degradation or premature failure.

### Absolute Maximum Ratings at TA=25°C

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

- Notes:
  1. 1/10 Duty Cycle, 0.1ms Pulse Width.
  2. Relative humidity levels maintained between 40% and 60% in production area are recommended to avoid the build-up of static electricity - Ref JEDEC/JESD625-A and JEDEC/J-STD-033.

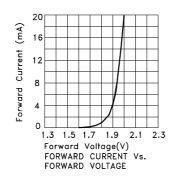
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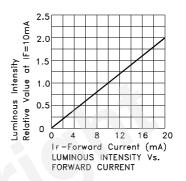


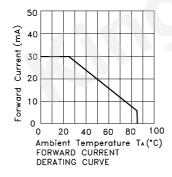
Relative Intensity Vs. Wavelength

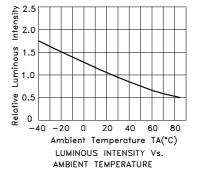
### **Super Bright Yellow**

### KCSC02-107



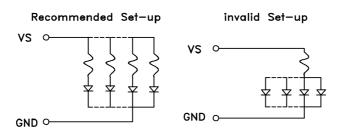






## CIRCUIT DESIGN NOTES

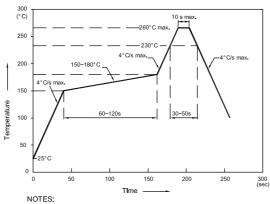
- 1.Protective current—limiting resistors may be necessary to operate the Displays.
- 2.LEDs mounted in parallel should each be placed in series with its own current—limiting resistor.



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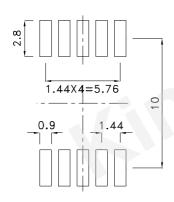


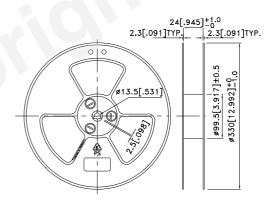
- 1.We recommend the reflow temperature 245°C(+/-5°C).The maximum soldering temperature should be limited to 260°C.
- 2.Don't cause stress to the epoxy resin while it is exposed to high temperature.
   3.Number of reflow process shall be 2 times or less.

## **Recommended Soldering Pattern**

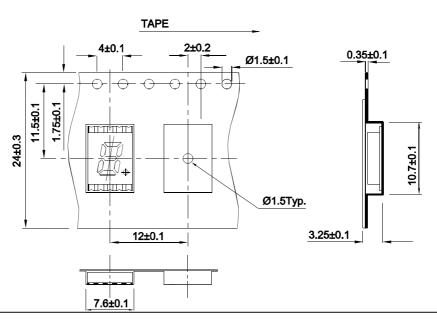
## (Units: mm; Tolerance: ± 0.15)

### **Reel Dimension**





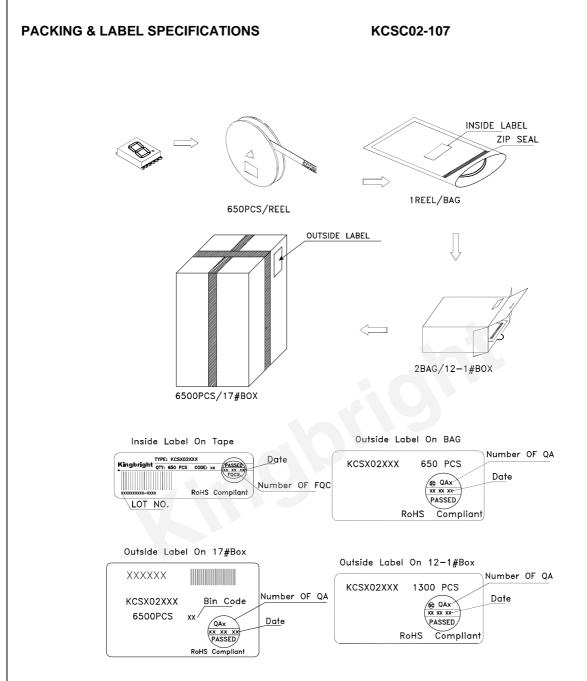
### **Tape Specifications** (Units: mm)



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