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With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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#### SURFACE MOUNT DISPLAY

Part Number: ACSA08-51SYKWA

Super Bright Yellow

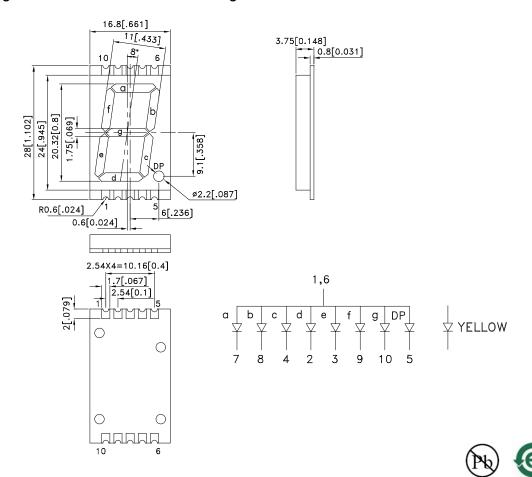
#### **Features**

- 0.8 inch digit height.
- Low current operation.
- Excellent character appearance.
- Mechanically rugged.
- Gray face, white segment.
- Package: 200pcs/ 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**



#### Notes:

- 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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 REV NO: V.5
 DATE: MAR/22/2011
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 APPROVED: WYNEC
 CHECKED: Joe Lee
 DRAWN: J.Yu
 ERP: 1351000565

#### **Selection Guide**

Part No.	Dice	Lens Type	lv (ucd) [1] @ 10mA		Description
		,	Min.	Тур.	
ACSA08-51SYKWA	Super Bright Yellow (AlGaInP)	White Diffused	31000	76000	Common Anode, Rt. Hand Decimal.

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

Symbol	Parameter	Device	Тур.	Max.	Units	Test Conditions
λpeak	Peak Wavelength	Super Bright Yellow	590		nm	IF=20mA
λD [1]	Dominant Wavelength	Super Bright Yellow	590		nm	IF=20mA
Δλ1/2	Spectral Line Half-width	Super Bright Yellow	20		nm	IF=20mA
С	Capacitance	Super Bright Yellow	20		pF	VF=0V;f=1MHz
VF [2]	Forward Voltage	Super Bright Yellow	2.0	2.5	V	IF=20mA
lr	Reverse Current	Super Bright Yellow		10	uA	V <sub>R</sub> =5V

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

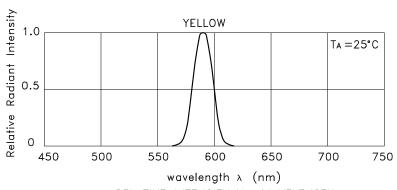
Parameter	Super Bright Yellow	Units	
Power dissipation	75	mW	
DC Forward Current	30	mA	
Peak Forward Current [1]	175	mA	
Reverse Voltage	5	V	
Operating / Storage Temperature	-40°C To +85°C		

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

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

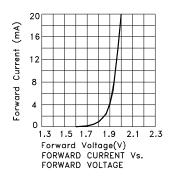
<sup>1. 1/10</sup> Duty Cycle, 0.1ms Pulse Width.

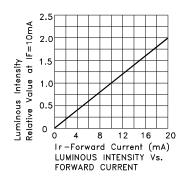


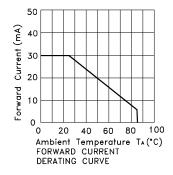
RELATIVE INTENSITY Vs. WAVELENGTH

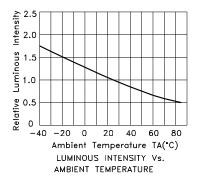
#### **Super Bright Yellow**

#### ACSA08-51SYKWA







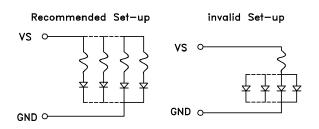


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#### CIRCUIT DESIGN NOTES

- 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.

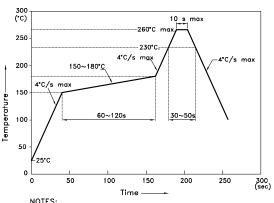


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#### ACSA08-51SYKWA

Reflow Soldering Profile For Lead-free SMT Process.



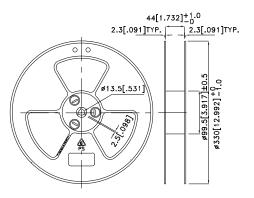
- NOTES:

  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.

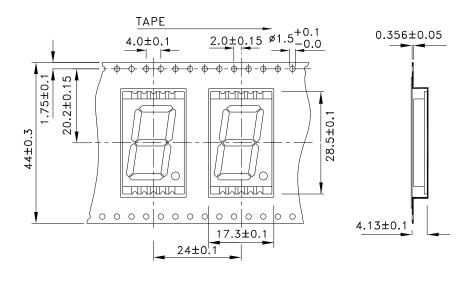
#### **Recommended Soldering Pattern** (Units: mm; Tolerance: ± 0.15)

# 2.54X4=10.16 9 27

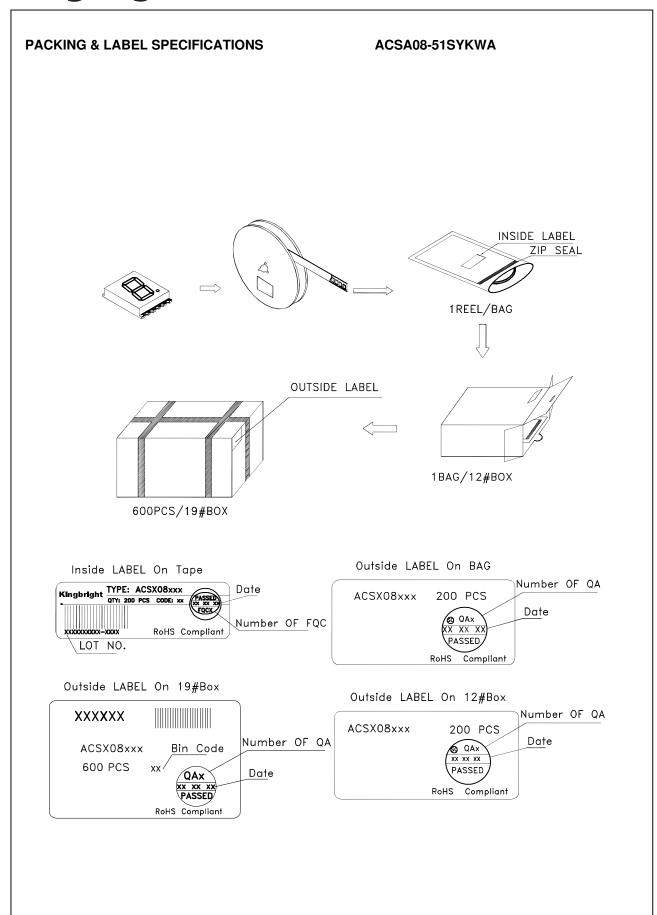
#### **Reel Dimension**



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



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