

### SURFACE MOUNT DISPLAY

Part Number: ACPSA04-41SYKWA

Super Bright Yellow

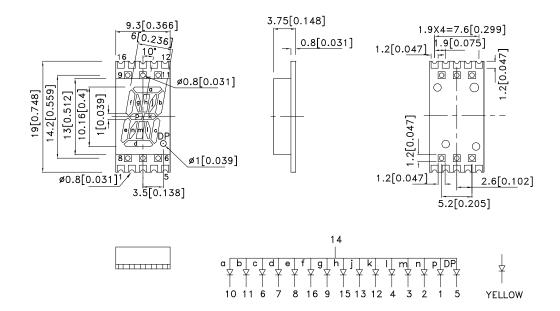
### **Features**

- 0.4 inch character height.
- Low current operation.
- High contrast and light output.
- Categorized for luminous intensity.
- Mechanically rugged.
- Gray face, white segment.
- Package: 400pcs / 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.
- The specifications, characteristics and technical data described in the datasheet are subject to change without prior notice.
   The gap between the reflector and PCB shall not exceed 0.25mm.

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### **Selection Guide**

Part No.	Dice	Lens Type	Iv (ucd) [1] @ 10mA		Description
T dit No.			Min.	Тур.	
ACPSA04-41SYKWA	Super Bright Yellow (AlGaInP)	White Diffused	21000	46000	Common Anode, Rt. Hand Decimal.
7.01 0.101 910 HWA			*5600	*12000	

### Note:

### 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

- 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.

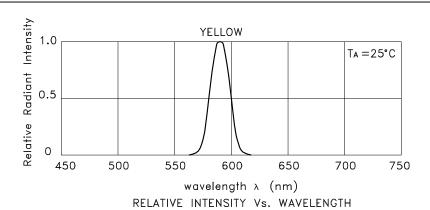
### Absolute Maximum Ratings at TA=25°C

Parameter	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		

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

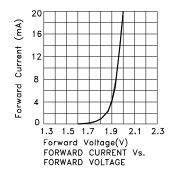
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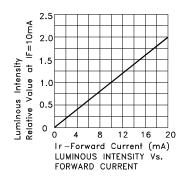
<sup>1.</sup> Luminous intensity/ luminous Flux: +/-15%.
\*Luminous intensity value is traceable to the CIE127-2007 compliant national standards.

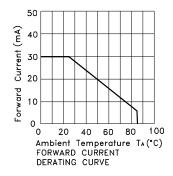


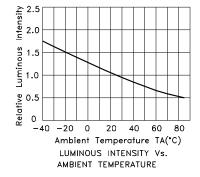
### **Super Bright Yellow**

### ACPSA04-41SYKWA



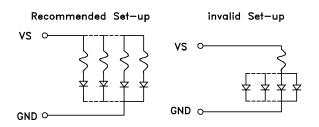






### CIRCUIT DESIGN NOTES

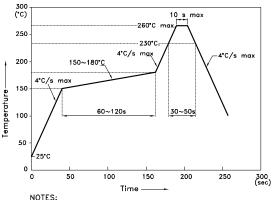
- 1.Protective current—limiting resistors may be necessary to operate the Displays.
- 2.LEDs mounted in parallel should each be placed in series with its own current—limiting resistor.



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### ACPSA04-41SYKWA

Reflow Soldering Profile For Lead-free SMT Process.



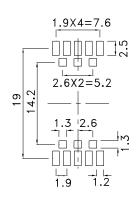
- NOTES:

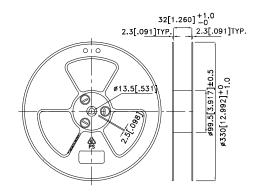
  1.We recommend the reflow temperature 245°C(+/-5°C). The maximum soldering temperature should be limited to 260°C.

  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.

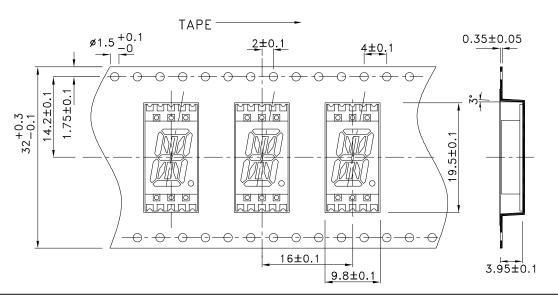
### Recommended Soldering Pattern (Units: mm; Tolerance: ± 0.15)

### Reel Dimension

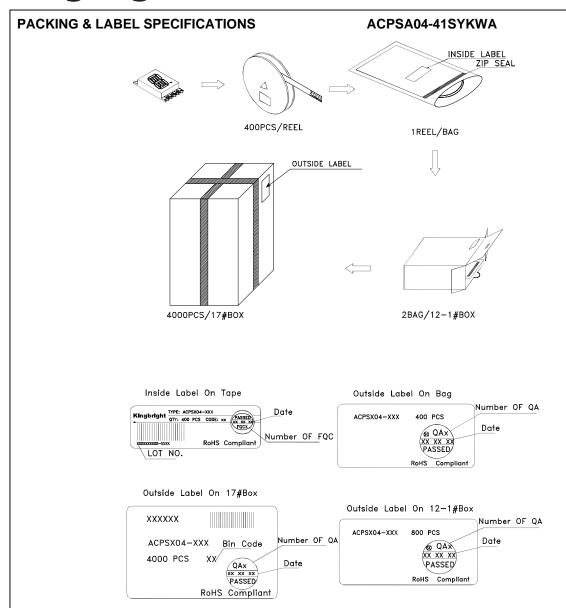




## Tape Specifications (Units: mm)



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