

### SURFACE MOUNT DISPLAY

Part Number: ACSA02-41SGWA-F01

Super Bright Green

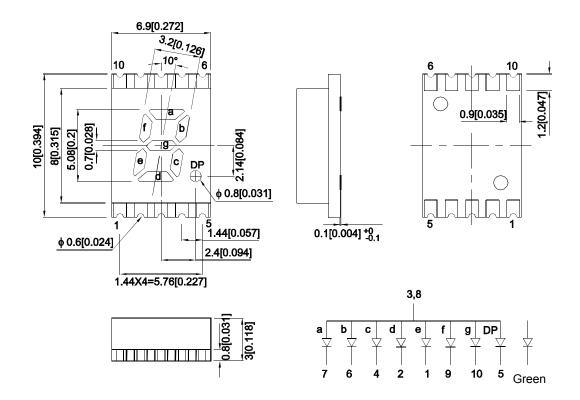
#### **Features**

- 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 Green source color devices are made with Gallium Phosphide Green Light Emitting Diode.

### **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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# Kingbright

### **Selection Guide**

Part No.	Emitting Color (Material)	Lens Type	Iv (ucd) [1] @ 10mA		Description
			Min.	Тур.	
ACCA00 44COWA F04	Curren Bright Creen (CoD)	I White Diffused	Common Anode, Rt.		
ACSA02-41SGWA-F01	Super Bright Green (GaP)		*560	*1400	Hand Decimal.

#### Note:

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

Symbol	Parameter	Emitting Color	Тур.	Max.	Units	Test Conditions
λpeak	Peak Wavelength	Super Bright Green	565		nm	IF=10mA
λD [1]	Dominant Wavelength	Super Bright Green	568		nm	IF=10mA
Δλ1/2	Spectral Line Half-width	Super Bright Green	30		nm	IF=10mA
С	Capacitance	Super Bright Green	15		pF	VF=0V;f=1MHz
VF [2]	Forward Voltage	Super Bright Green	2	2.5	V	IF=10mA
lR	Reverse Current	Super Bright Green		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.
- 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	62.5	mW	
DC Forward Current	25	mA	
Peak Forward Current [1]	140	mA	
Reverse Voltage	5	V	
Operating / Storage Temperature	-40°C To +85°C		

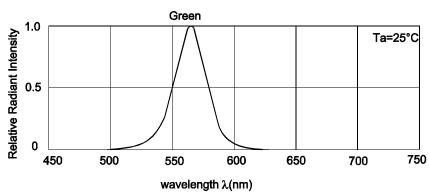
Note: 1. 1/10 Duty Cycle, 0.1ms Pulse Width.

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

<sup>\*</sup>Luminous intensity value is traceable to the CIE127-2007 compliant national standards.

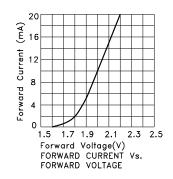
## **Kingbright**

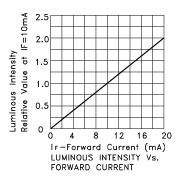


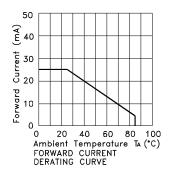
Relative Intensity Vs. Wavelength

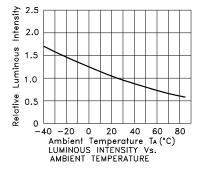
### **Super Bright Green**

### **ACSA02-41SGWA-F01**







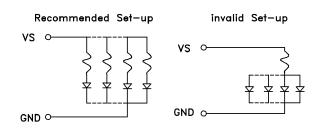


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### CIRCUIT DESIGN NOTES

- 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.



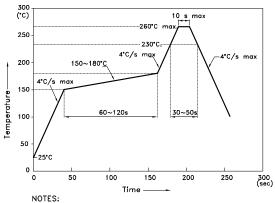
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#### **ACSA02-41SGWA-F01**

Reflow Soldering Profile For Lead-free SMT Process.



- NOTES:

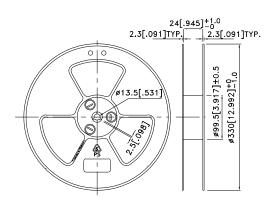
  1.We recommend the reflow temperature 245°C(+/-5°C). The maximum soldering temperature should be limited to 260°C.

  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.

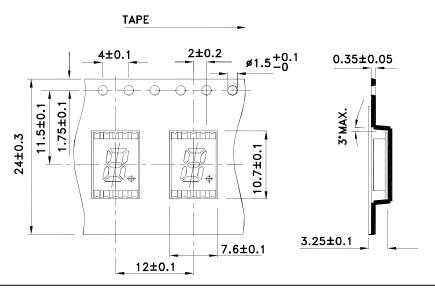
### Recommended Soldering Pattern (Units: mm; Tolerance: ± 0.15)

# 1.44X4=5.76 0.9 | 1.44

### **Reel Dimension**

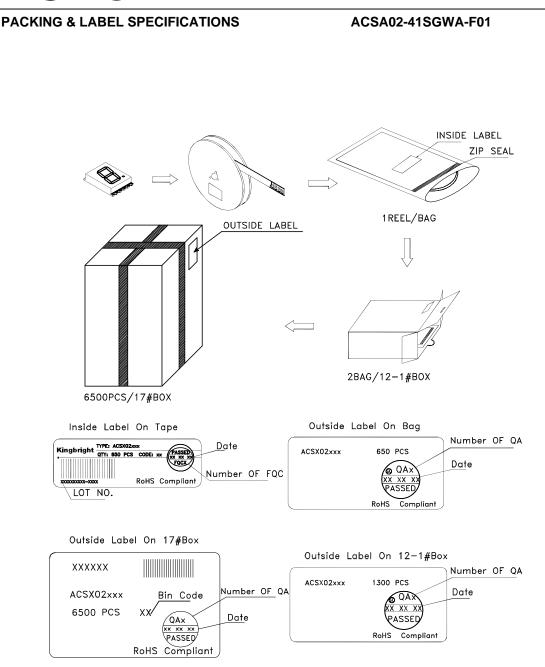


Tape Specifications (Units : mm)



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