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# SURFACE MOUNT DISPLAY

Part Number: ACSA04-41SGWA-F01

Super Bright Green

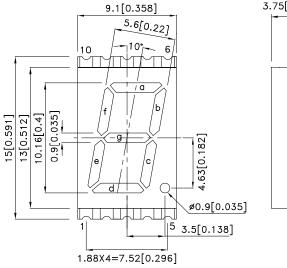
## **Features**

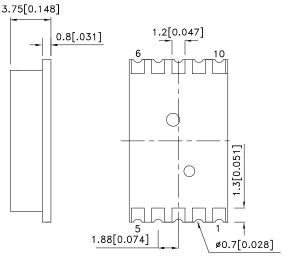
- 0.4 inch digit height.
- Low current operation.
- Excellent character appearance.
- Mechanically rugged.
- Gray face, white segment.
- Package:400pcs/ reel.
- Moisture sensitivity level : level 2a.
- RoHS compliant.

# Description

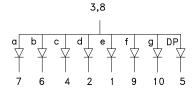
The Super Bright Green source color devices are made with Gallium Phosphide Green Light Emitting Diode.

# **Package Dimensions& Internal Circuit Diagram**















- 1. All dimensions are in millimeters (inches), Tolerance is ±0.25(0.01")unless otherwise noted.
- 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	lv (ucd) [1] @ 10mA		Description
T art No.			Min.	Тур.	2000 i pilon
ACSA04-41SGWA-F01	Super Bright Green (GaP)	White Diffused	2200	4700	Common Anode, Rt. Hand Decimal.
			*560	*1200	

### Notes:

# Electrical / Optical Characteristics at TA=25°C

Symbol	Parameter	Device	Тур.	Max.	Units	Test Conditions
λpeak	Peak Wavelength	Super Bright Green	565		nm	IF=20mA
λD [1]	Dominant Wavelength	Super Bright Green	568		nm	IF=20mA
Δλ1/2	Spectral Line Half-width	Super Bright Green	30		nm	IF=20mA
С	Capacitance	Super Bright Green	15		pF	VF=0V;f=1MHz
VF [2]	Forward Voltage	Super Bright Green	2.2	2.5	V	IF=20mA
IR	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.

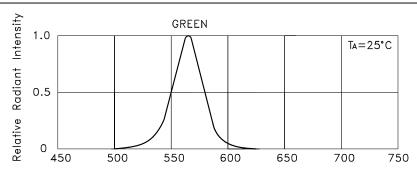
# Absolute Maximum Ratings at TA=25°C

Parameter	Super Bright Green	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		

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.

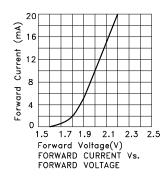


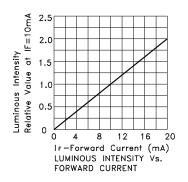
wavelength  $\lambda$  (nm)

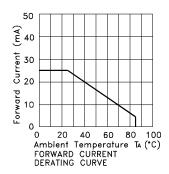
RELATIVE INTENSITY Vs. WAVELENGTH

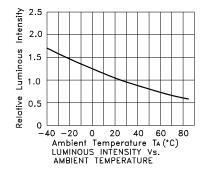
## **Super Bright Green**

## **ACSA04-41SGWA-F01**



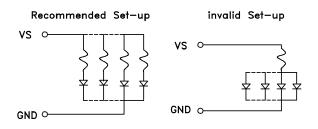






# CIRCUIT DESIGN NOTES

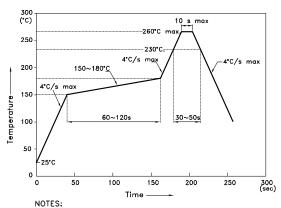
- 1.Protective current—limiting resistors may be necessary to operate the Displays.
- 2.LEDs mounted in parallel should each be placed in series with its own current—limiting resistor.



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## **ACSA04-41SGWA-F01**

Reflow Soldering Profile For Lead-free SMT Process.



- NOTES:

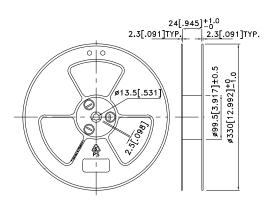
  1.We recommend the reflow temperature 245°C(+/-5°C). The maximum soldering temperature should be limited to 260°C.

  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.

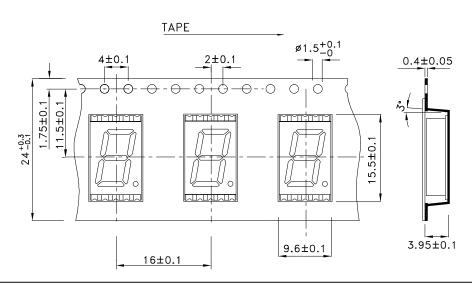
# Recommended Soldering Pattern (Units: mm; Tolerance: ± 0.15)

# 1.88X4=7.52 1.2 | 1.88

# **Reel Dimension**

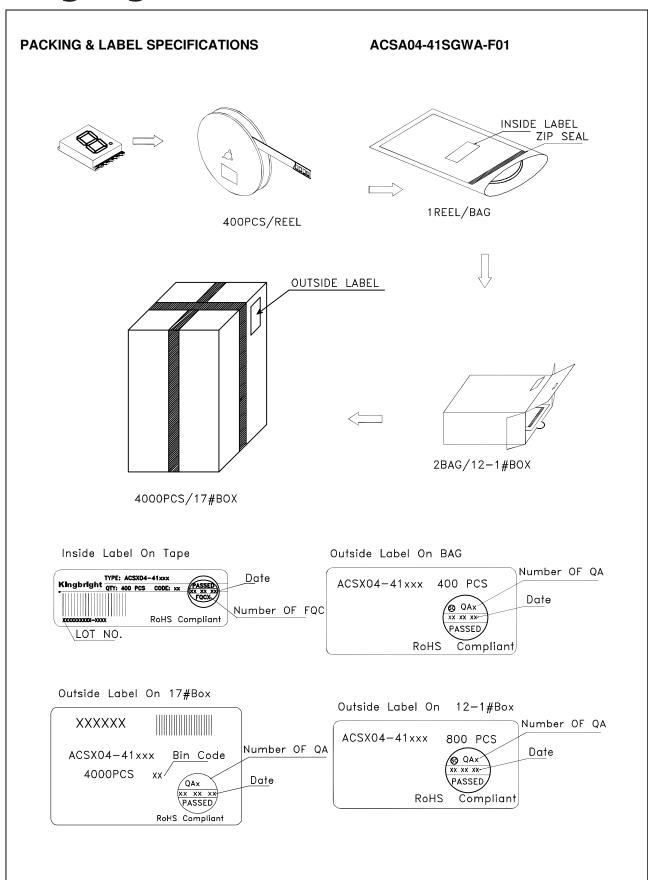


Tape Specifications (Units: mm)



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All design applications should refer to Kingbright application notes available at

http://www.KingbrightUSA.com/ApplicationNotes