

### SURFACE MOUNT DISPLAY

Part Number: ACSC03-41SGWA-F01

Super Bright Green

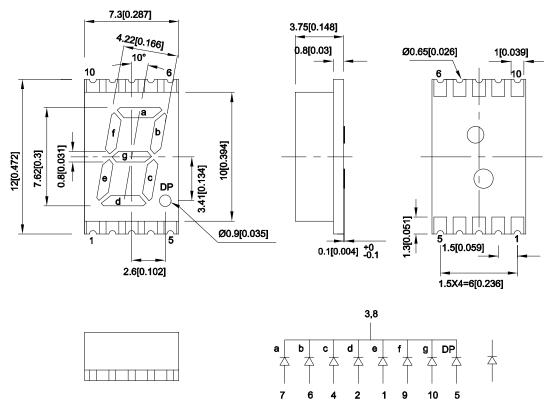
### **Features**

- 0.3 inch digit height.
- Low current operation.
- Excellent character appearance.
- Mechanically rugged.
- Gray face, white segment.
- Package: 550pcs / 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.

DATE: DEC/18/2015 SPEC NO: DSAG1317 **REV NO: V.8A** PAGE: 1 OF 5 APPROVED: Wynec **CHECKED:** Joe Lee DRAWN: L.Q.Xie ERP: 1351000381

### **Selection Guide**

Part No.	Emitting Color (Material)	Lens Type	Lens Type Iv (ucc @ 10		Description	
			Min.	Тур.		
ACSC03-41SGWA-F01	Super Bright Green (GaP)	White Diffused	1400	3500	Common Cathode, Rt.	
AC3C03-413GWA-101	Super Bright Green (Gar)	Wille Dillused	*560	*1200	Hand Decimal.	

#### Notes:

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

## 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	2.0	2.5	V	IF=10mA
lr	Reverse Current	Super Bright Green		10	uA	V <sub>R</sub> =5V

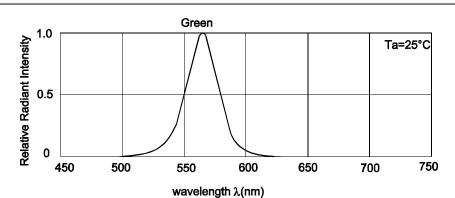
- 1. Wavelength: +/-1nm.
- 2. Forward Voltage: +/-0.1V.
- 3. Wavelength value is traceable to the CIE127-2007 compliant national standards.
- Excess driving current and / or operating temperature higher than recommended conditions may result in severe light degradation or premature failure.

### 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.

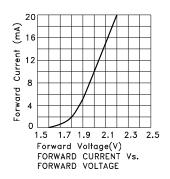
DATE: DEC/18/2015 SPEC NO: DSAG1317 **REV NO: V.8A** PAGE: 2 OF 5 APPROVED: Wynec **CHECKED:** Joe Lee DRAWN: L.Q.Xie ERP: 1351000381

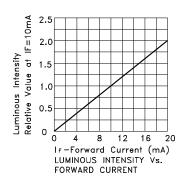


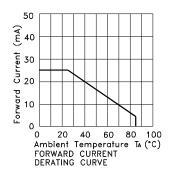
Relative Intensity Vs. Wavelength

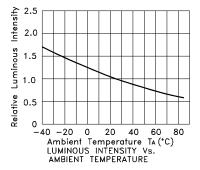
**Super Bright Green** 

ACSC03-41SGWA-F01



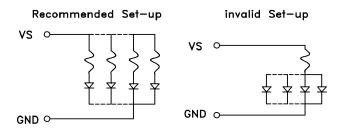






## CIRCUIT DESIGN NOTES

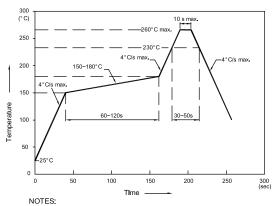
- 1.Protective current—limiting resistors may be necessary to operate the Displays.
- 2.LEDs mounted in parallel should each be placed in series with its own current—limiting resistor.



SPEC NO: DSAG1317 APPROVED: Wynec REV NO: V.8A CHECKED: Joe Lee DATE: DEC/18/2015 DRAWN: L.Q.Xie PAGE: 3 OF 5 ERP: 1351000381

### ACSC03-41SGWA-F01

Reflow Soldering Profile For Lead-free SMT Process.

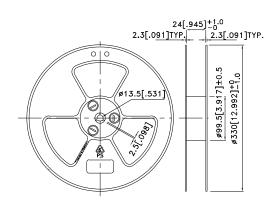


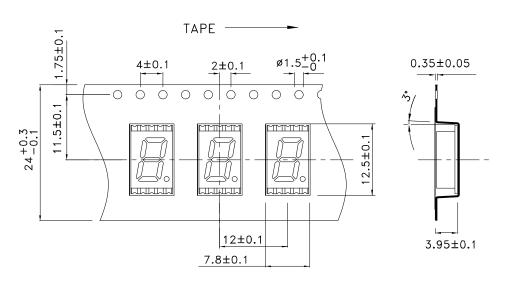
- 1.We recommend the reflow temperature 245°C(+/-5°C). The maximum soldering temperature should be limited to 260°C.
- 2.Don't cause stress to the epoxy resin while it is exposed to high temperature.
- 3.Number of reflow process shall be 2 times or less.

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

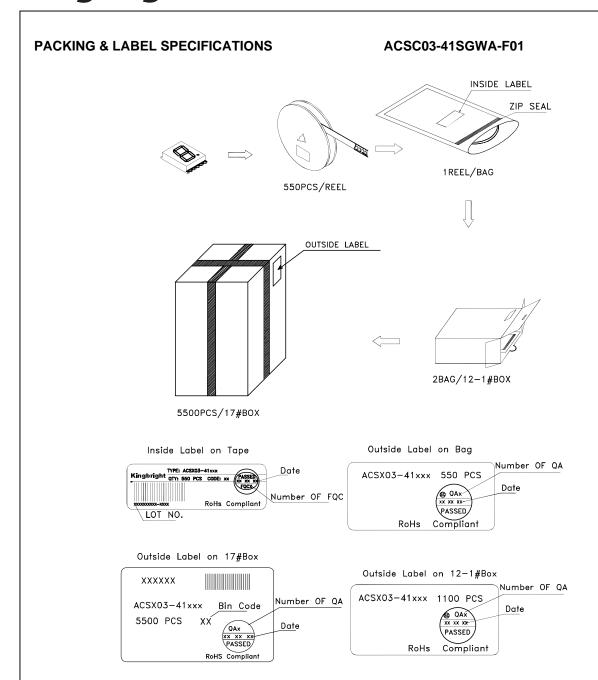
# Tape Specifications (Units : mm)

### **Reel Dimension**





SPEC NO: DSAG1317 APPROVED: Wynec REV NO: V.8A CHECKED: Joe Lee DATE: DEC/18/2015 DRAWN: L.Q.Xie PAGE: 4 OF 5 ERP: 1351000381



### Terms and conditions for the usage of this document

- 1. The information included in this document reflects representative usage scenarios and is intended for technical reference only.
- 2. The part number, type, and specifications mentioned in this document are subject to future change and improvement without notice. Before production usage customer should refer to the latest datasheet for the updated specifications.
- 3. When using the products referenced in this document, please make sure the product is being operated within the environmental and electrical limits specified in the datasheet. If customer usage exceeds the specified limits, Kingbright will not be responsible for any subsequent issues.
- 4. The information in this document applies to typical usage in consumer electronics applications. If customer's application has special reliability requirements or have life-threatening liabilities, such as automotive or medical usage, please consult with Kingbright representative for further assistance.
- 5. The contents and information of this document may not be reproduced or re-transmitted without permission by Kingbright.
- 6. All design applications should refer to Kingbright application notes available at <a href="http://www.KingbrightUSA.com/ApplicationNotes">http://www.KingbrightUSA.com/ApplicationNotes</a>

 SPEC NO: DSAG1317
 REV NO: V.8A
 DATE: DEC/18/2015
 PAGE: 5 OF 5

 APPROVED: Wynec
 CHECKED: Joe Lee
 DRAWN: L.Q.Xie
 ERP: 1351000381