

## **Excellent Integrated System Limited**

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Kingbright ACSA03-41SGWA-F01

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## **Distributor of Kingbright: Excellent Integrated System Limited**

Datasheet of ACSA03-41SGWA-F01 - DISPLAY 0.3" SGL 565NM GRN SMD Contact us: sales@integrated-circuit.com Website: www.integrated-circuit.com

# Kingbright

#### SURFACE MOUNT DISPLAY

Part Number: ACSA03-41SGWA-F01

Super Bright Green

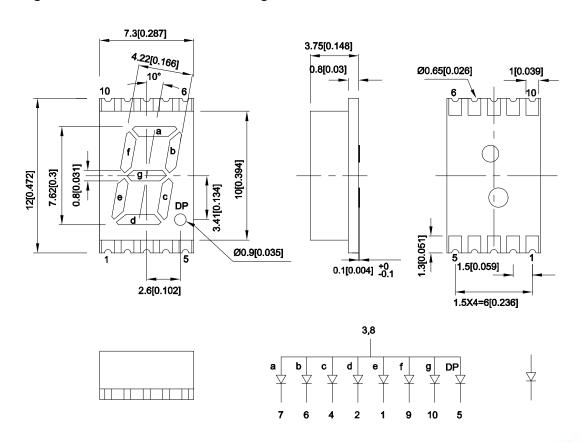
#### **Features**

- 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**





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- 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.	Emitting Color (Material)	nitting Color (Material) Lens Type		d) [1] DmA	Description
			Min.	Тур.	
ACSA03-41SGWA-F01	Super Bright Green (GaP)	m (GaP) White Diffused 1400 3500 *560 *1200	Common Anode, Rt.		
7,007,00 4100071101	Super Englis Groun (Our )		*560	*1200	Hand Decimal.

#### Notes:

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

#### Notes:

- 1. Wavelength: +/-1nm.
- 2. Forward Voltage: +/-0.1V.
- 3. Wavelength value is traceable to CIE127-2007 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	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		

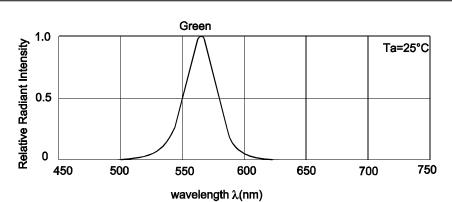
#### Notes:

- 1. 1/10 Duty Cycle, 0.1ms Pulse Width.
- 2. Relative humidity levels maintained between 40% and 60% in production area are recommended to avoid the build-up of static electricity Ref JEDEC/JESD625-A and JEDEC/J-STD-033.

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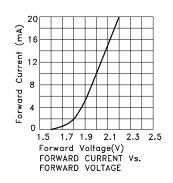
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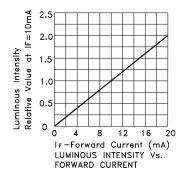


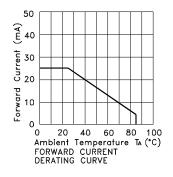
Relative Intensity Vs. Wavelength

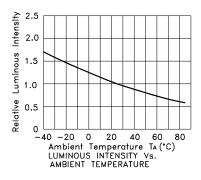
## **Super Bright Green**

#### **ACSA03-41SGWA-F01**



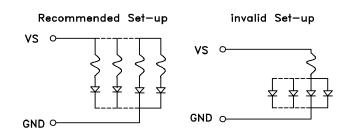






## CIRCUIT DESIGN NOTES

- 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.

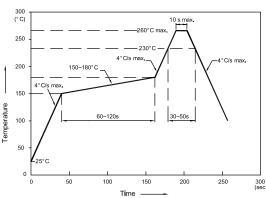


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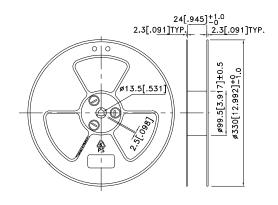


- NOTES:
- 1. We recommend the reflow temperature 245°C(+/-5°C). The maximum soldering temperature should be limited to 260°C.
- 2. Don't cause stress to the epoxy resin while it is exposed
- to high temperature.

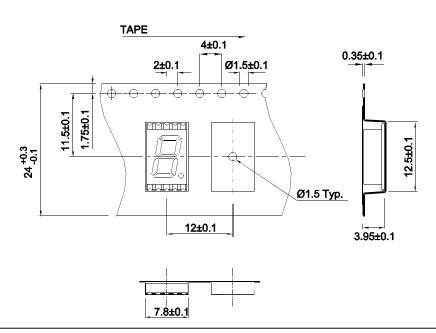
  3. Number of reflow process shall be 2 times or less.

### Recommended **Soldering Pattern**

### **Reel Dimension**



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

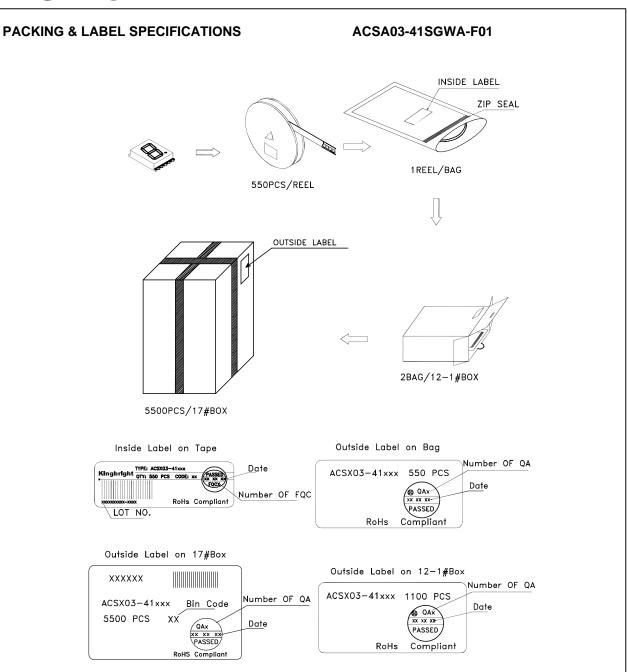


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