

### SURFACE MOUNT DISPLAY

Part Number: ACSC08-51SEKWA

Super Bright Orange

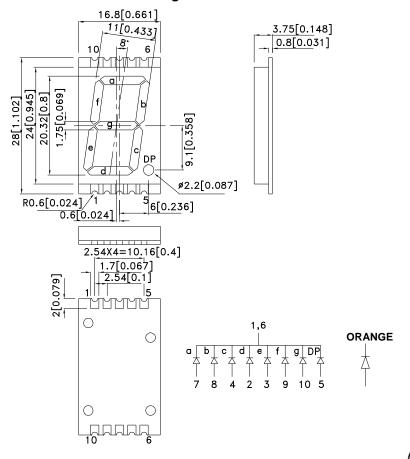
#### **Features**

- 0.8 inch digit height.
- Low current operation.
- Excellent character appearance.
- Mechanically rugged.
- Gray face, white segment.
- Package: 200pcs/ reel
- Moisture sensitivity level : level 2a.
- RoHS compliant.

### Description

The Super Bright Orange 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.	o. Dice Lens Type		lv (ucd) [1] @ 10mA		Description
			Min.	Тур.	
ACSC08-51SEKWA	Super Bright Orange (AlGaInP)	White Diffused	31000	82000	Common Cathode, Rt.Hand Decimal.
			*14000	*27000	

- 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	Device	Тур.	Max.	Units	Test Conditions
λpeak	Peak Wavelength	Super Bright Orange	610		nm	IF=20mA
λD [1]	Dominant Wavelength	Super Bright Orange	601		nm	IF=20mA
Δλ1/2	Spectral Line Half-width	Super Bright Orange	29		nm	IF=20mA
С	Capacitance	Super Bright Orange	15		pF	VF=0V;f=1MHz
VF [2]	Forward Voltage	Super Bright Orange	2.1	2.5	V	IF=20mA
lr	Reverse Current	Super Bright Orange		10	uA	VR=5V

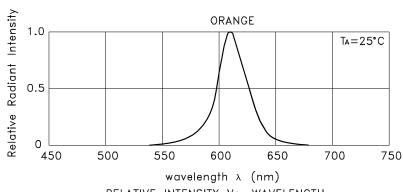
- 1.Wavelength: +/-1nm.
- 2.Forward Voltage: +/-0.1V.
- 3. Wavelength value is traceable to the CIE127-2007 compliant national standards.
- 4.Excess driving current and/or operating temperature higher than recommended conditions may result in severe light degradation or premature failure.

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

Parameter	Super Bright Orange	Units	
Power dissipation	75	mW	
DC Forward Current	30	mA	
Peak Forward Current [1]	195	mA	
Reverse Voltage	5	V	
Operating / Storage Temperature	-40°C To +85°C		

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

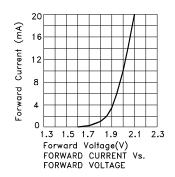
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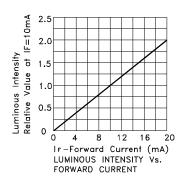


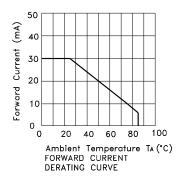
RELATIVE INTENSITY Vs. WAVELENGTH

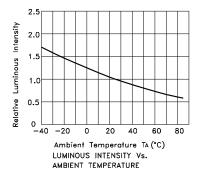
### **Super Bright Orange**

### ACSC08-51SEKWA



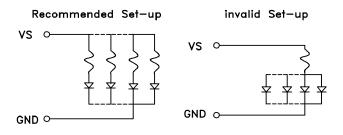






### CIRCUIT DESIGN NOTES

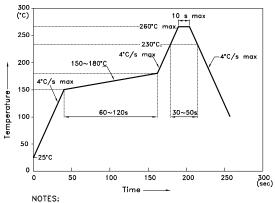
- 1.Protective current—limiting resistors may be necessary to operate the Displays.
- 2.LEDs mounted in parallel should each be placed in series with its own current—limiting resistor.



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#### ACSC08-51SEKWA

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.

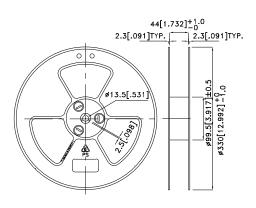
  2.Don't cause stress to the epoxy resin while it is exposed to high temperature.
  - 3. Number of reflow process shall be 2 times or less.

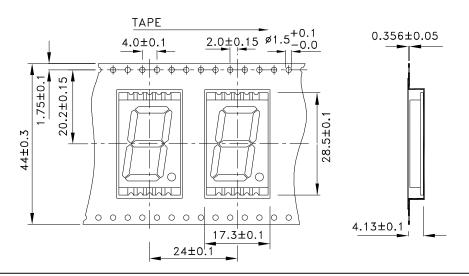
### Recommended Soldering Pattern (Units: mm; Tolerance: ± 0.15)

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### Tape Specifications (Units : mm)

### **Reel Dimension**





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### **PACKING & LABEL SPECIFICATIONS** ACSC08-51SEKWA INSIDE LABEL ZIP SEAL 1REEL/BAG OUTSIDE LABEL 1BAG/12-1#BOX 1000PCS/17#BOX Inside LABEL On BAG Inside LABEL On Tape Number OF QA Kingbright TYPE: ACSX08xxx Date ACSX08xxx 200 PCS <u>Dat</u>e Ø QAx Number OF FQC RoHS Compliant \PASSED. LOT NO. RoHS Compliant Outside LABEL On 17#Box Outside LABEL On 12-1#Box Number OF QA XXXXXX ACSX08xxx 200 PCS Number OF QA Date ACSX08xxx SO QAX XX XX XX 1000 PCS

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

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1. The information included in this document reflects representative usage scenarios and is intended for technical reference only.

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### Contact Us:

### Address:

401 Building No.5, JiuGe Business Center, Lane 2301, Yishan Rd Minhang District, Shanghai , China

### Sales:

Direct +86 (21) 6401-6692

Email amall@ameya360.com

QQ 800077892

Skype ameyasales1 ameyasales2

### Customer Service :

Email service@ameya360.com

### Partnership :

Tel +86 (21) 64016692-8333

Email mkt@ameya360.com