

#### SURFACE MOUNT DISPLAY

Part Number: ACDA56-41SEKWA-F01

Super Bright Orange

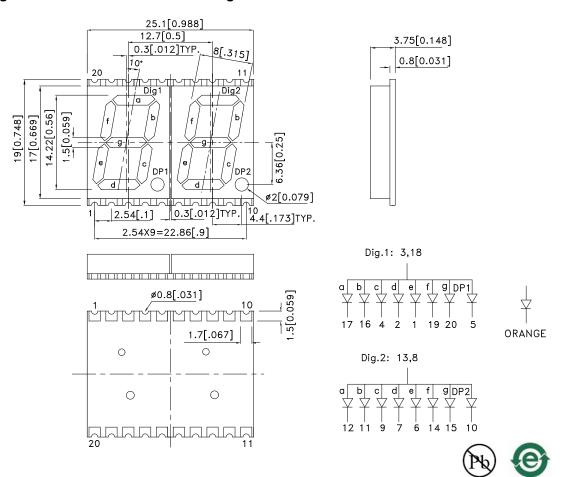
#### **Features**

- 0.56 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.
- 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.

SPEC NO: DSAG0244 **REV NO: V.12A DATE: JAN/08/2015** PAGE: 1 OF 5 APPROVED: WYNEC **CHECKED:** Joe Lee DRAWN: Q.M.Chen ERP: 1352000338

#### **Selection Guide**

Part No.	Dice	Lens Type	lv (ucd) [1] @ 10mA		Description
			Min.	Тур.	2333.1643
ACDA56-41SEKWA-F01	Super Bright Orange (AlGaInP)	White Diffused	31000	78000	Common Anode, Rt. Hand Decimal.
NODING TIGERWITTET			14000*	23000*	

#### Note:

#### 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	V <sub>R</sub> =5V		

#### Notes:

- Navelength: +/-1nm.
   Forward Voltage: +/-0.1V.
   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.

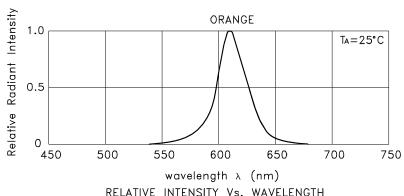
#### Absolute Maximum Ratings at TA=25°C

Parameter	neter Super Bright Orange					
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					

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

SPEC NO: DSAG0244 **REV NO: V.12A** DATE: JAN/08/2015 PAGE: 2 OF 5 APPROVED: WYNEC **CHECKED:** Joe Lee DRAWN: Q.M.Chen ERP: 1352000338

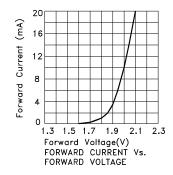
<sup>1.</sup>Luminous intensity/ luminous Flux: +/-15%.
\*Luminous intensity value is traceable to the CIE127-2007 compliant national standards.

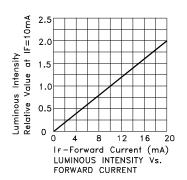


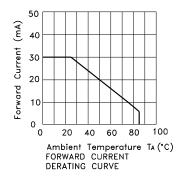
RELATIVE INTENSITY Vs. WAVELENGTH

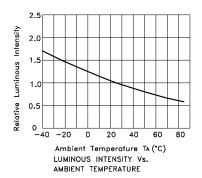
## **Super Bright Orange**

#### ACDA56-41SEKWA-F01



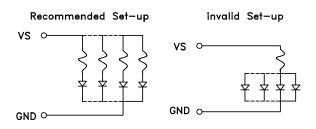






## CIRCUIT DESIGN NOTES

- 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: DSAG0244 **APPROVED: WYNEC** 

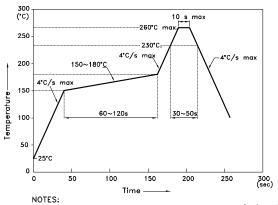
**REV NO: V.12A CHECKED:** Joe Lee

DATE: JAN/08/2015 DRAWN: Q.M.Chen

PAGE: 3 OF 5 ERP: 1352000338

#### ACDA56-41SEKWA-F01

Reflow Soldering Profile For Lead-free SMT Process.



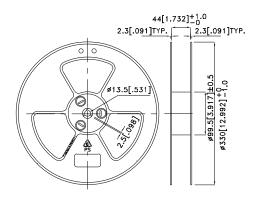
- NOTES:

  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.

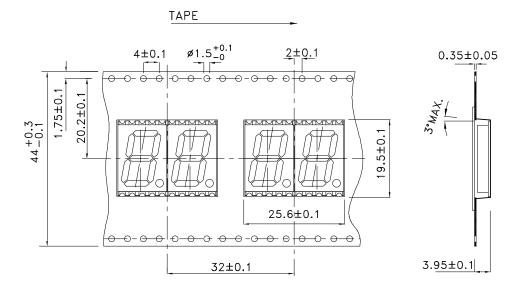
#### **Recommended Soldering Pattern** (Units: mm; Tolerance: ± 0.15)

# 2.54X9 = 22.862.54 1.7

#### **Reel Dimension**



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

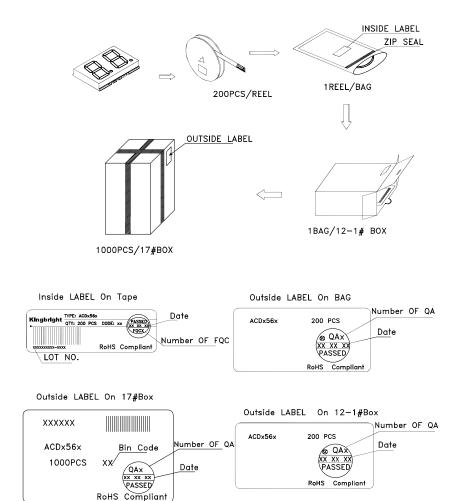


SPEC NO: DSAG0244 **REV NO: V.12A** APPROVED: WYNEC **CHECKED:** Joe Lee DRAWN: Q.M.Chen

**DATE: JAN/08/2015** PAGE: 4 OF 5 ERP: 1352000338

#### **PACKING & LABEL SPECIFICATIONS**

#### ACDA56-41SEKWA-F01



#### 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: DSAG0244
 REV NO: V.12A
 DATE: JAN/08/2015
 PAGE: 5 OF 5

 APPROVED: WYNEC
 CHECKED: Joe Lee
 DRAWN: Q.M.Chen
 ERP: 1352000338

## **Mouser Electronics**

**Authorized Distributor** 

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Kingbright:

ACDA56-41SEKWA-F01