

#### SURFACE MOUNT DISPLAY

Super Bright Red Part Number: ACSC04-41SRWA-F01

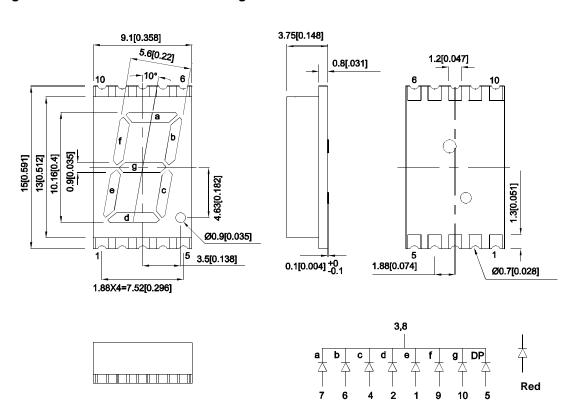
#### **Features**

- 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 Red source color devices are made with Gallium Aluminum Arsenide Red Light Emitting Diode.

#### **Package Dimensions& Internal Circuit Diagram**





SPEC NO: DSAF7020

**APPROVED: Wynec** 

1. All dimensions are in millimeters (inches), Tolerance is  $\pm 0.25 (0.01")$  unless otherwise noted.

**REV NO: V.11A** 

**CHECKED:** Joe Lee

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.

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#### **Selection Guide**

Part No.	Emitting Color (Material)	Lens Type	lv (ucd) [1] @ 10mA		Description
			Min.	Тур.	
ACSC04-41SRWA-F01	Super Bright Red (GaAlAs)	White Diffused	5600	14000	Common Cathode, Rt. Hand Decimal.
			*1400	*3600	

- 1. 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 Red	655		nm	IF=10mA
λD [1]	Dominant Wavelength	Super Bright Red	640		nm	IF=10mA
Δλ1/2	Spectral Line Half-width	Super Bright Red	20		nm	IF=10mA
С	Capacitance	Super Bright Red	45		pF	VF=0V;f=1MHz
VF [2]	Forward Voltage	Super Bright Red	1.8	2.5	V	IF=10mA
lr	Reverse Current	Super Bright Red		10	uA	V <sub>R</sub> =5V

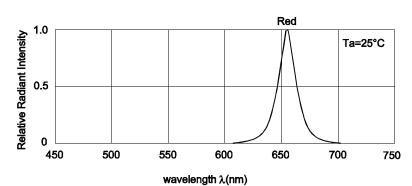
- Wavelength: +/-1nm.
   Forward Voltage: +/-0.1V.
- 3. Wavelength value is traceable to the CIE127-2007 compliant national standards.
- 4. Excess driving current and/or operating temperature higher than recommended conditions may result in severe light degradation or premature failure.

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

Parameter	Values	Units	
Power dissipation	75	mW	
DC Forward Current	30	mA	
Peak Forward Current [1]	155	mA	
Reverse Voltage	5	V	
Operating / Storage Temperature	perature -40°C To +85°C		

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

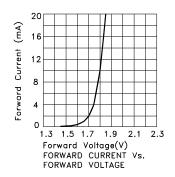
SPEC NO: DSAF7020 **REV NO: V.11A** DATE: DEC/28/2015 PAGE: 2 OF 5 APPROVED: Wynec **CHECKED:** Joe Lee DRAWN: F.T.Liu ERP: 1351000373

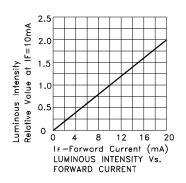


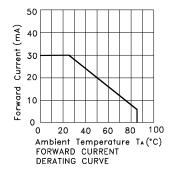
Relative Intensity Vs. Wavelength

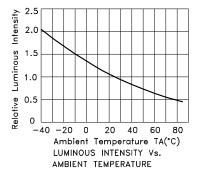
#### **Super Bright Red**

#### ACSC04-41SRWA-F01



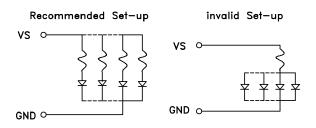






#### CIRCUIT DESIGN NOTES

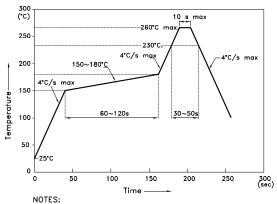
- 1.Protective current—limiting resistors may be necessary to operate the Displays.
- 2.LEDs mounted in parallel should each be placed in series with its own current—limiting resistor.



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#### ACSC04-41SRWA-F01

Reflow Soldering Profile For Lead-free SMT Process.



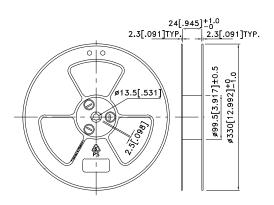
- NOTES:

  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.

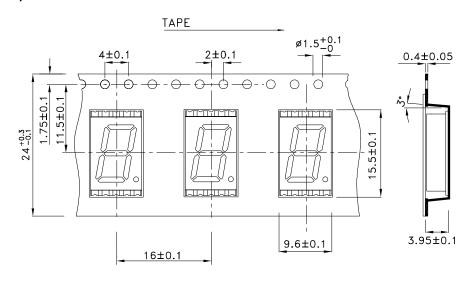
#### **Recommended Soldering Pattern** (Units: mm; Tolerance: ± 0.15)

# 1.88X4=7.52 5 1.2 1.88

### **Reel Dimension**



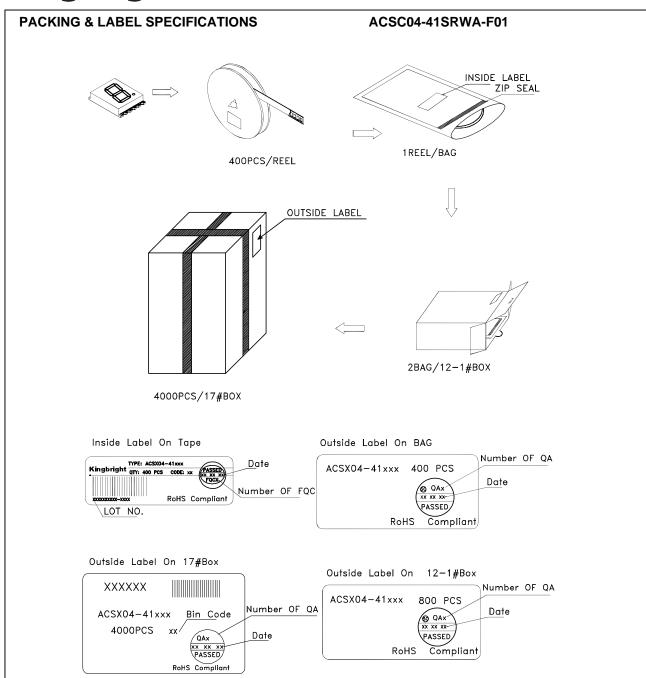
### **Tape Specifications** (Units: mm)



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