

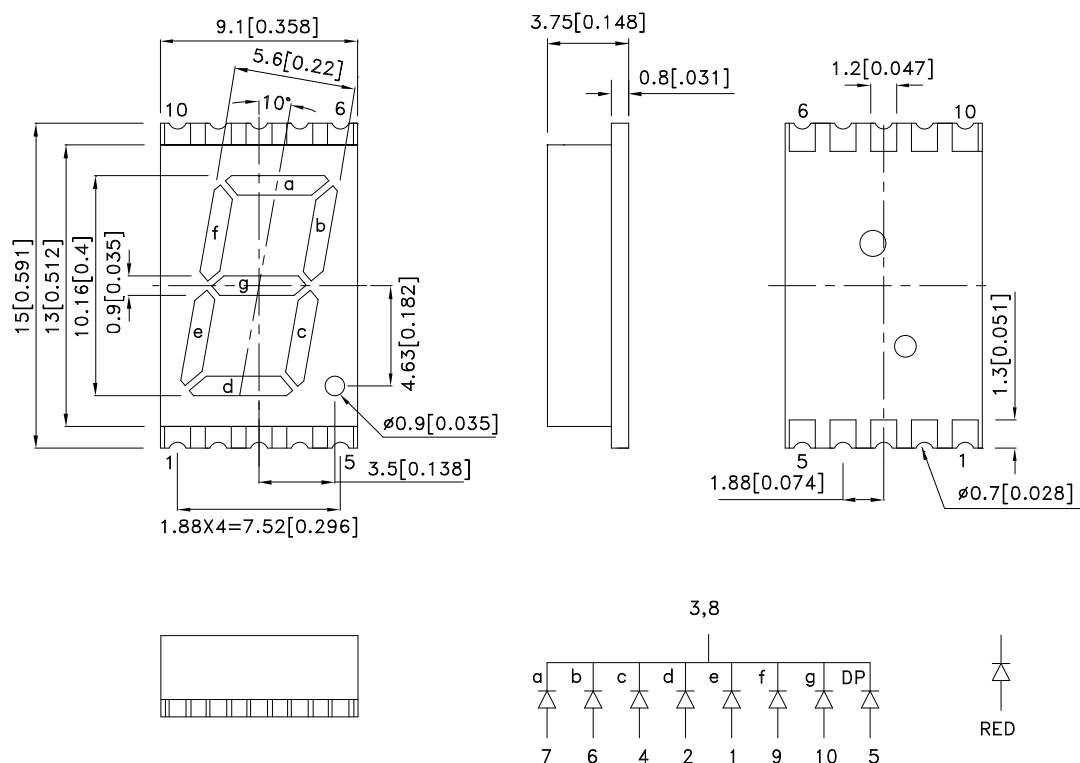
Features

- 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



Notes:

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



Selection Guide

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

Notes:

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	Device	Typ.	Max.	Units	Test Conditions
λ_{peak}	Peak Wavelength	Super Bright Red	655		nm	I _F =20mA
λ_D [1]	Dominant Wavelength	Super Bright Red	640		nm	I _F =20mA
$\Delta\lambda_{1/2}$	Spectral Line Half-width	Super Bright Red	20		nm	I _F =20mA
C	Capacitance	Super Bright Red	45		pF	V _F =0V; f=1MHz
V _F [2]	Forward Voltage	Super Bright Red	1.85	2.5	V	I _F =20mA
I _R	Reverse Current	Super Bright Red		10	uA	V _R =5V

Notes:

1. Wavelength: +/-1nm.

2. Forward Voltage: +/-0.1V.

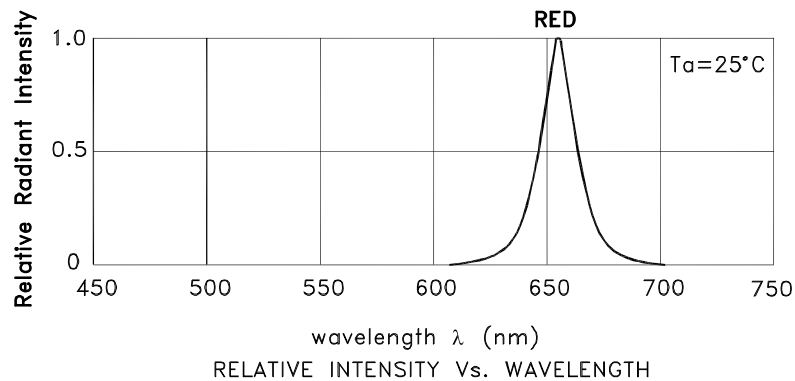
3. Wavelength value is traceable to the CIE127-2007 compliant national standards.

Absolute Maximum Ratings at TA=25°C

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

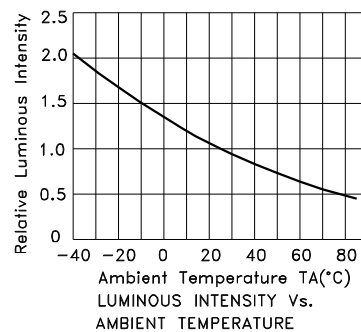
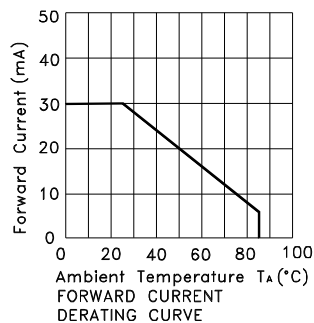
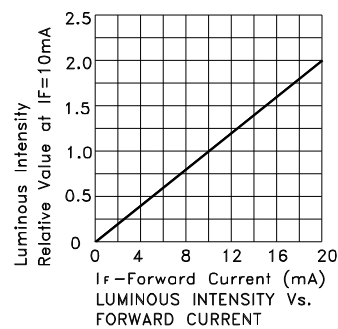
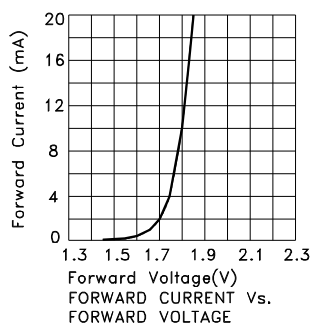
Note:

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



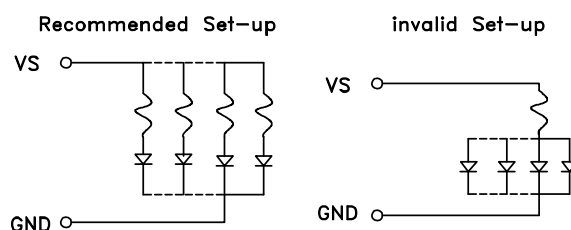
Super Bright Red

ACSC04-41SRWA-F01



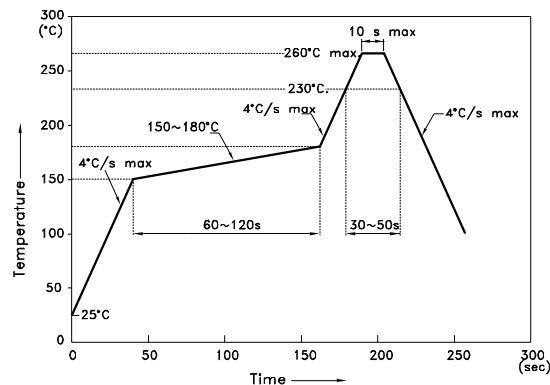
CIRCUIT DESIGN NOTES

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.



ACSC04-41SRWA-F01

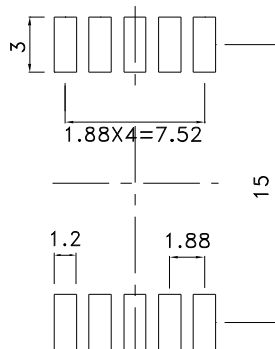
Reflow Soldering Profile For Lead-free SMT Process.



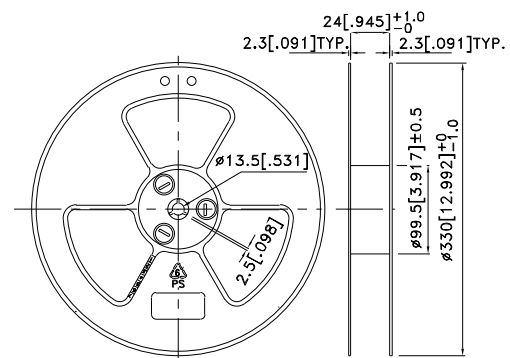
NOTES:

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.

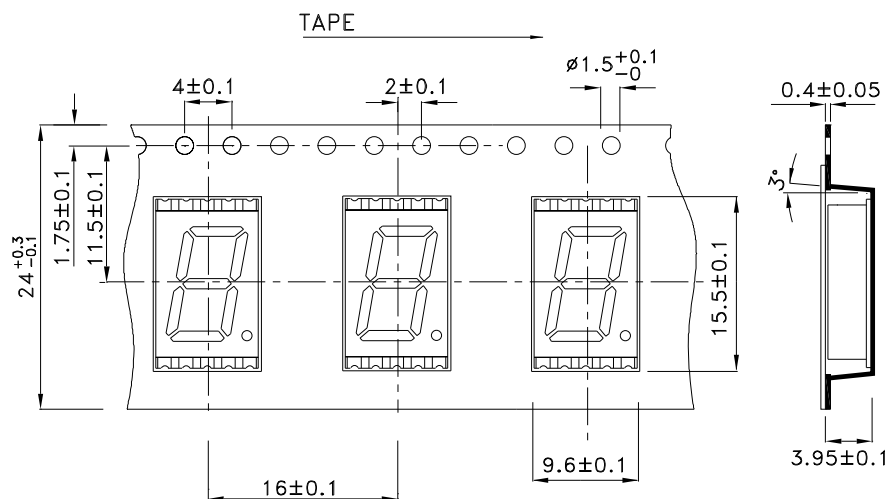
Recommended Soldering Pattern (Units : mm; Tolerance: ± 0.15)



Reel Dimension

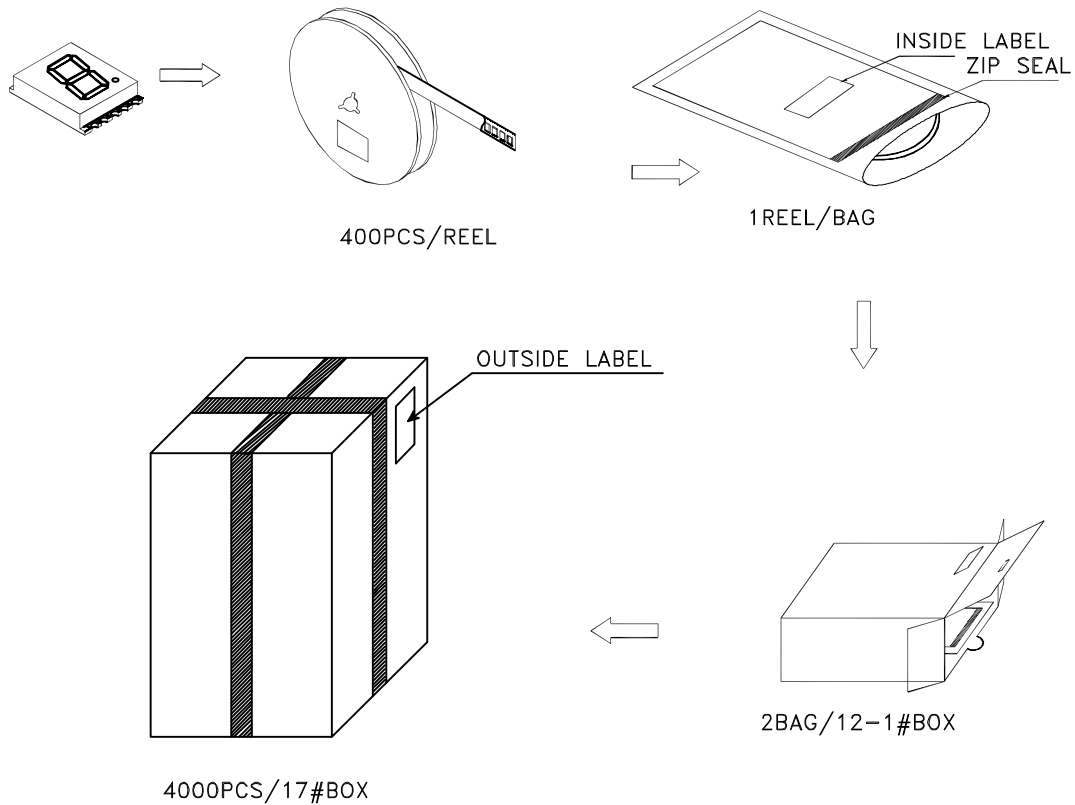


Tape Specifications (Units : mm)

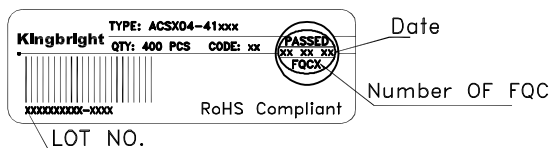


PACKING & LABEL SPECIFICATIONS

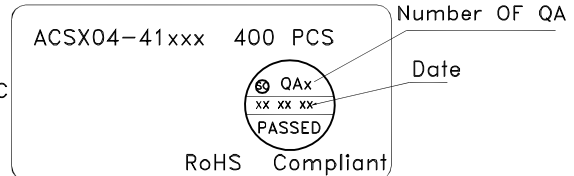
ACSC04-41SRWA-F01



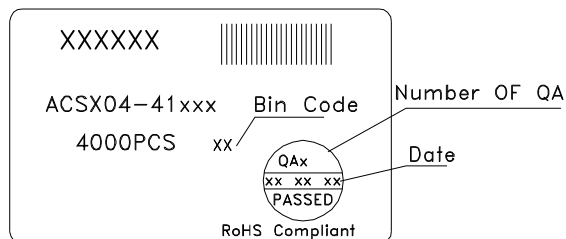
Inside Label On Tape



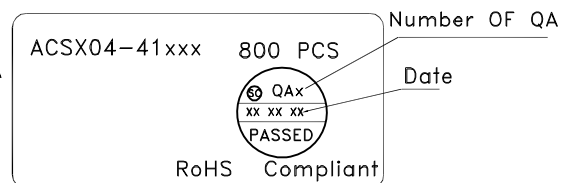
Outside Label On BAG



Outside Label On 17#Box



Outside Label On 12-1#Box



All design applications should refer to Kingbright application notes available at
<http://www.KingbrightUSA.com/ApplicationNotes>