

Part Number: ACSC03-41SYKWA-F01

Super Bright Yellow

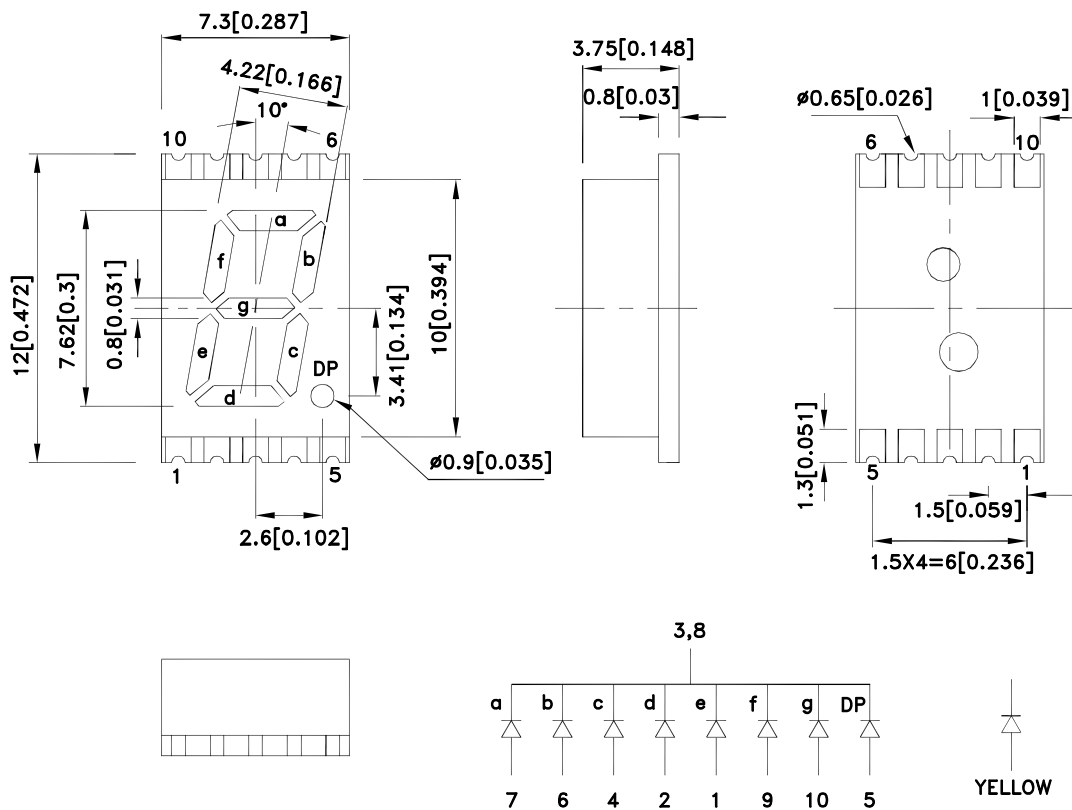
Features

- 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 Yellow device is made with AlGaInP (on GaAs substrate) light emitting diode chip.

Package Dimensions& Internal Circuit Diagram



Notes:

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

Selection Guide

Part No.	Dice	Lens Type	Iv (ucd) [1] @ 10mA		Description
			Min.	Typ.	
ACSC03-41SYKWA-F01	Super Bright Yellow (AlGaInP)	White Diffused	21000	36000	Common Cathode, Rt. Hand Decimal
			*5600	*13000	

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 Yellow	590		nm	I _F =20mA
λ_D [1]	Dominant Wavelength	Super Bright Yellow	590		nm	I _F =20mA
$\Delta\lambda_{1/2}$	Spectral Line Half-width	Super Bright Yellow	20		nm	I _F =20mA
C	Capacitance	Super Bright Yellow	20		pF	V _F =0V;f=1MHz
V _F [2]	Forward Voltage	Super Bright Yellow	2.0	2.5	V	I _F =20mA
I _R	Reverse Current	Super Bright Yellow		10	uA	V _R =5V

Notes:

1.Wavelength: +/-1nm.

2. Forward Voltage: +/-0.1V.

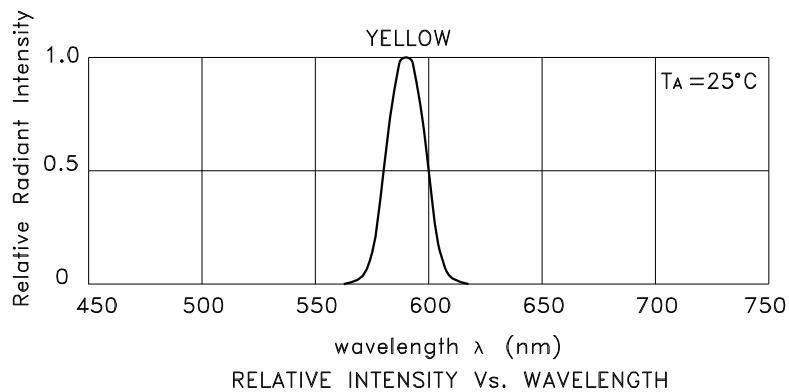
3. Wavelength value is traceable to the CIE127-2007 compliant national standards.

Absolute Maximum Ratings at TA=25°C

Parameter	Super Bright Yellow	Units
Power dissipation	75	mW
DC Forward Current	30	mA
Peak Forward Current [1]	175	mA
Reverse Voltage	5	V
Operating / Storage Temperature	-40°C To +85°C	

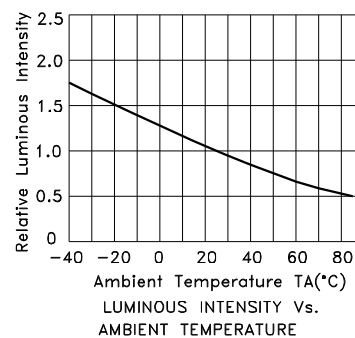
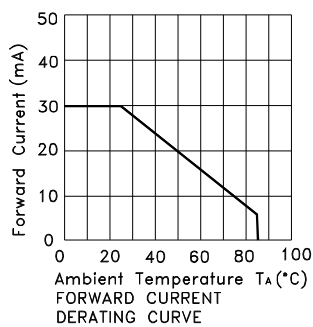
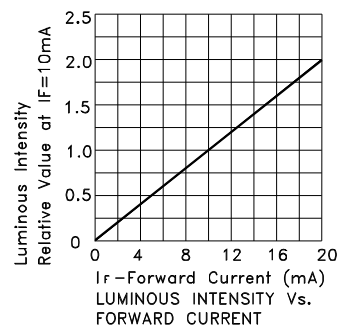
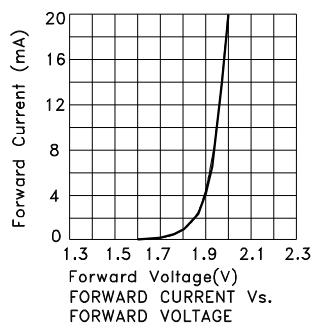
Note:

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



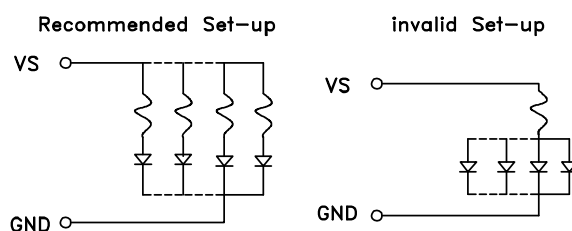
Super Bright Yellow

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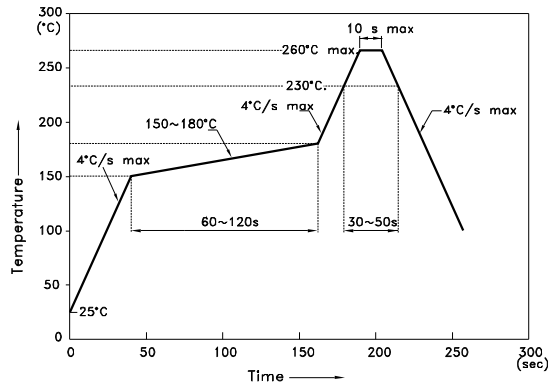
CIRCUIT DESIGN NOTES

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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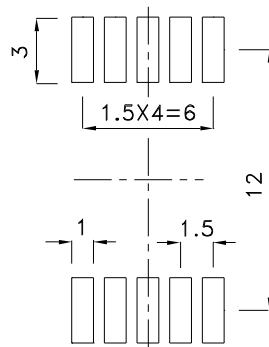
Reflow Soldering Profile For Lead-free SMT Process.



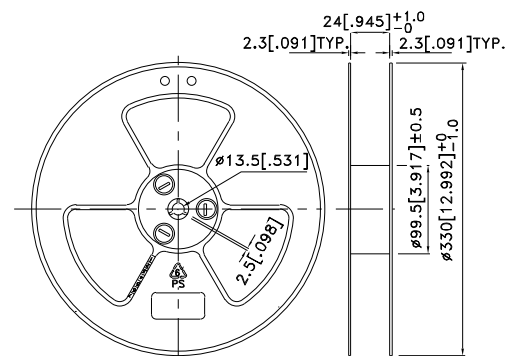
NOTES:

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.

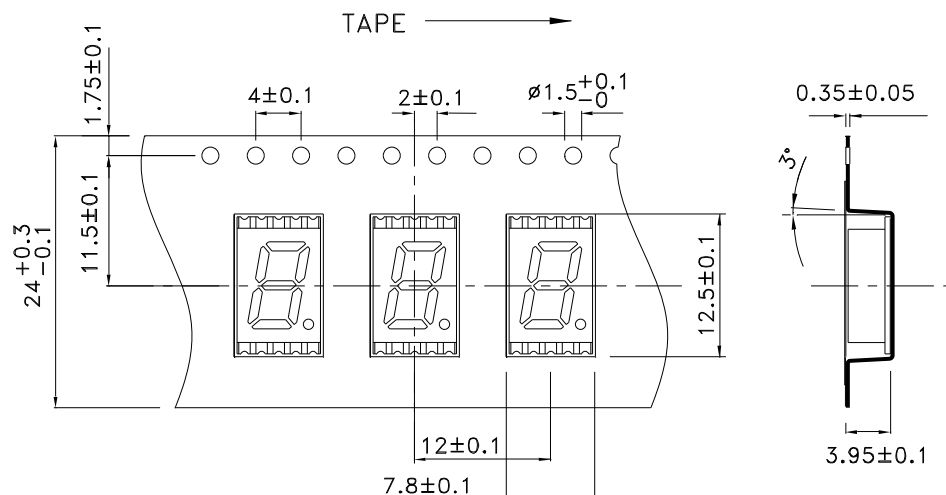
Recommended Soldering Pattern (Units : mm; Tolerance: ± 0.15)



Reel Dimension

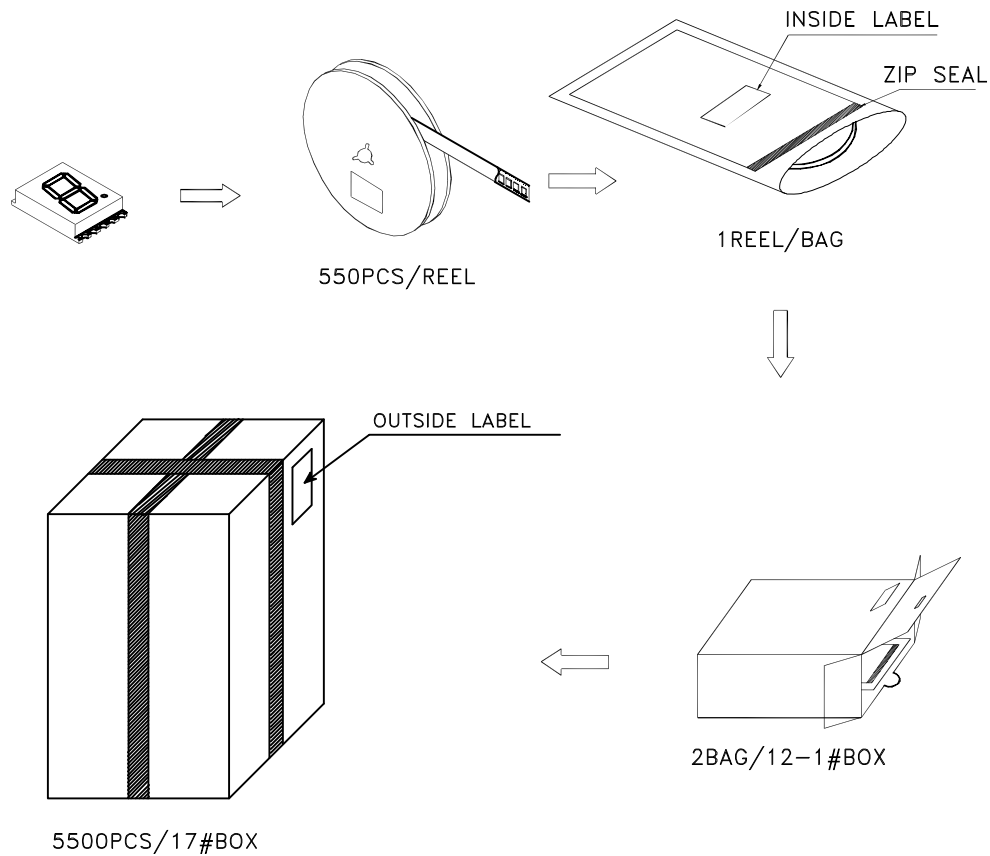


Tape Specifications (Units : mm)



PACKING & LABEL SPECIFICATIONS

ACSC03-41SYKWA-F01



Inside Label on Tape

Kingbright	TYPE: ACSX03-41xxx	QTY: 550 PCS	CODE: xx	RoHS Compliant
LOT NO.				Date Number OF FQC
PASSED xx xx xx FQC				

Outside Label on Bag

ACSX03-41xxx	550 PCS	RoHS Compliant
Number OF QA Date		QA xx xx xx PASSED

Outside Label on 17#Box

XXXXXX		Bin Code	Number OF QA
ACSX03-41xxx	5500 PCS	XX	Date
RoHS Compliant		QA xx xx xx PASSED	

Outside Label on 12-1#Box

ACSX03-41xxx	1100 PCS	RoHS Compliant
Number OF QA Date		QA xx xx xx PASSED

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