

12.7mm (0.5INCH)16 SEGMENT SINGLE DIGIT ALPHANUMERIC DISPLAY

Part Number: PSC05-11SYKWA

Super Bright Yellow

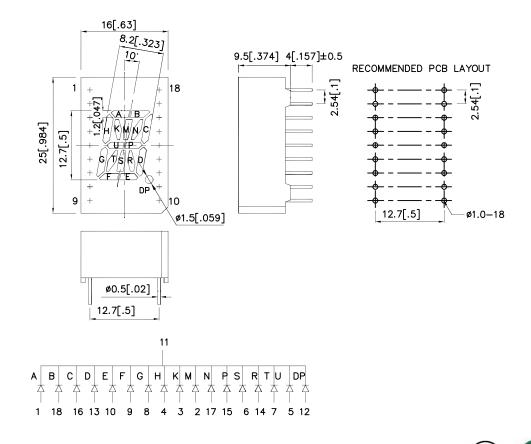
Features

- 0.5 inch character height.
- Low current operation.
- High contrast and light output.
- Easy mounting on P.C. boards or sockets.
- Mechanically rugged.
- Standard: gray face, white segment.
- 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



2. The specifications, characteristics and technical data described in the datasheet are subject to change without prior notice.

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Selection Guide

Part No.	Dice	Lens Type	lv (ucd) [1] @ 10mA		Description
			Min.	Тур.	· ·
PSC05-11SYKWA	Super Bright Yellow (AlGaInP)	White Diffused	31000	100000	Common Cathode, Rt. Hand Decimal.

Electrical / Optical Characteristics at TA=25℃

Symbol	Parameter	Device	Тур.	Max.	Units	Test Conditions
λpeak	Peak Wavelength	Super Bright Yellow	590		nm	IF=20mA
λD [1]	Dominant Wavelength	Super Bright Yellow	590		nm	I=20mA
Δλ1/2	Spectral Line Half-width	Super Bright Yellow	20		nm	IF=20mA
С	Capacitance	Super Bright Yellow	20		pF	VF=0V;f=1MHz
VF [2]	Forward Voltage	Super Bright Yellow	2.0	2.5	V	IF=20mA
lR	Reverse Current	Super Bright Yellow		10	uA	V _R =5V

Notes:

Absolute Maximum Ratings at TA=25℃

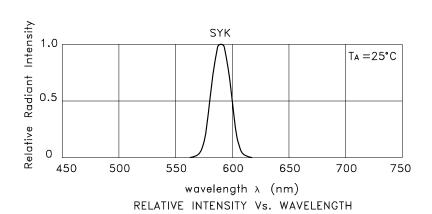
Parameter	Super Bright Yellow	Units		
Power dissipation	75	mW		
DC Forward Current	30	mA		
Peak Forward Current [1]	175	mA		
Reverse Voltage	5	V		
Operating / Storage Temperature	-40°C To +85°C			
Lead Solder Temperature[2]	260°C For 3-5 Seconds			

Notes: 1. 1/10 Duty Cycle, 0.1ms Pulse Width. 2. 2mm below package base.

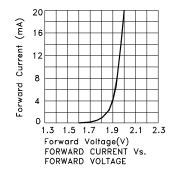
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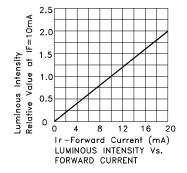
^{1.} Luminous intensity/ luminous Flux: +/-15%.

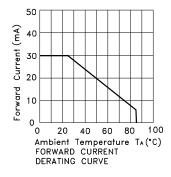
^{1.}Wavelength: +/-1nm. 2. Forward Voltage: +/-0.1V.

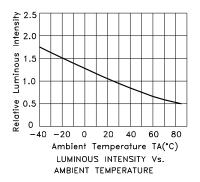


Super Bright Yellow PSC05-11SYKWA





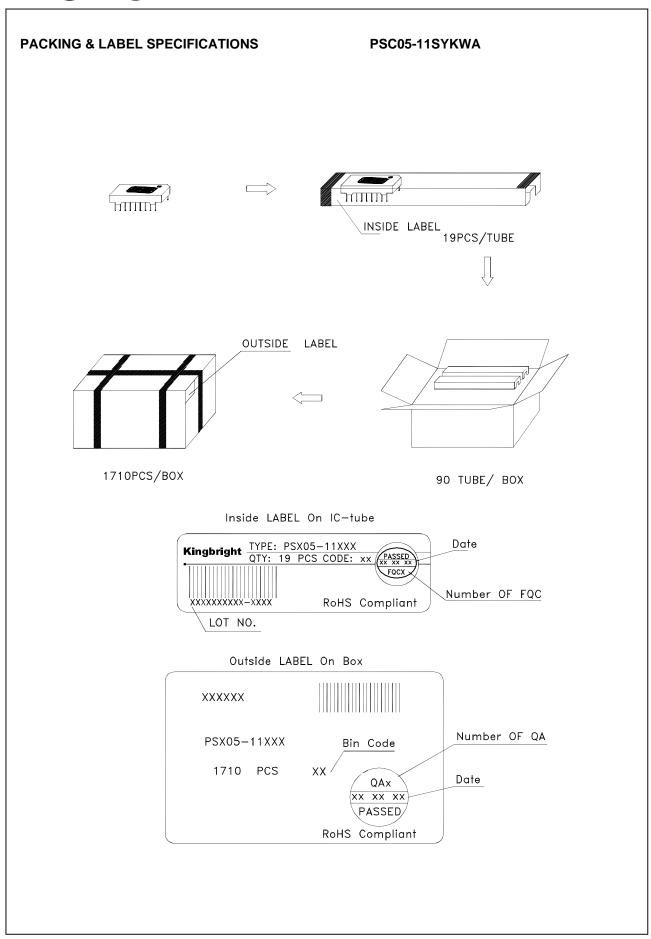




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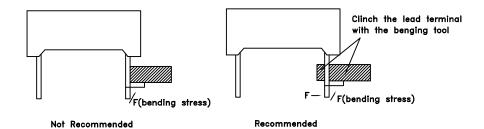


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THROUGH HOLE DISPLAY MOUNTING METHOD

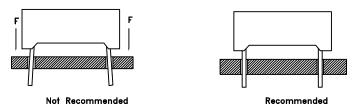
Lead Forming

Do not bend the component leads by hand without proper tools. The leads should be bent by clinching the upper part of the lead firmly such that the bending force is not exerted on the plastic body.



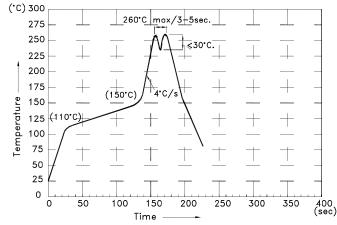
Installation

- 1. The installation process should not apply stress to the lead terminals.
- 2. When inserting for assembly, ensure the terminal pitch matches the substrate board's hole pitch to prevent spreading or pinching the lead terminals.



DISPLAY SOLDERING CONDITIONS

Wave Soldering Profile For Lead-free Through-hole LED.



NOTES:

- 1.Recommend the wave temperature 245°C~260°C.The maximum soldering temperature should be less than 260°C.
- 2.Do not apply stress on epoxy resins when temperature is over 85°C.
- 3. The soldering profile apply to the lead free soldering (Sn/Cu/Ag alloy).
- 4.During wave soldering , the PCB top—surface temperature should be kept below 105° C 5.No more than once.

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Soldering General Notes:

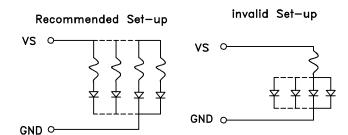
- a. Through—hole displays are incompatible with reflow soldering.
- b. If components will undergo multiple soldering processes, or other processes where the components may be subjected to intense heat, please check with Kingbright for compatibility.

CLEANING

- 1.Mild "no-clean" fluxes are recommended for use in soldering.
- 2. If cleaning is required, Kingbright recommends to wash components with water only. Do not use harsh organic solvents for cleaning, because they may damage the plastic parts .And the devices should not be washed for more than one minute.

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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