

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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101.2mm (4.0INCH) SINGLE DIGIT NUMERIC DISPLAY

Part Number: SC40-19YWA Yellow

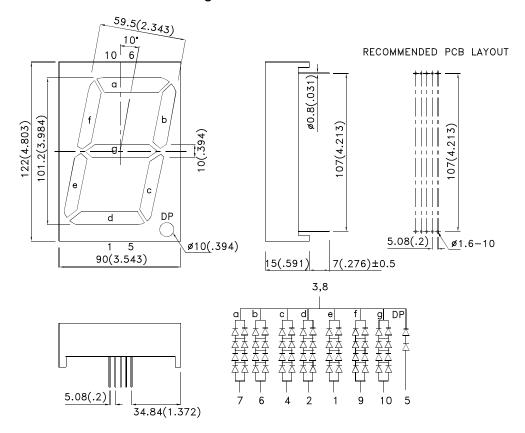
Features

- Large size.
- 4.0 inch digit height.
- Low current operation.
- Excellent character appearance.
- High light output.
- Easy mounting on P.C. boards or sockets.
- Mechanically rugged.
- Standard : gray face, white segment.
- RoHS compliant.

Description

The Yellow source color devices are made with Gallium Arsenide Phosphide on Gallium Phosphide Yellow Light Emitting Diode.

Package Dimensions& Internal Circuit Diagram



Notes

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.





 SPEC NO: DSAD2343
 REV NO: V.8
 DATE: APR/02/2011
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 APPROVED: WYNEC
 CHECKED: Joe Lee
 DRAWN: J.Yu
 ERP: 1301000989

Selection Guide

Part No.	Dice	Lens Type	lv (uc @ 10	,	Description
		,	Min.	Тур.	
SC40-19YWA	Yellow (GaAsP/GaP)	WHITE DIFFUSED	9000	22000	Common Cathode, Rt. Hand Decimal.

Note:

Electrical / Optical Characteristics at TA=25°C

Symbol	Parameter	Device	Тур.	Max.	Units	Test Conditions
λpeak	Peak Wavelength	Yellow	590		nm	IF=20mA
λD [1]	Dominant Wavelength	Yellow	588		nm	IF=20mA
Δλ1/2	Spectral Line Half-width	Yellow	35		nm	IF=20mA
С	Capacitance	Yellow	20		pF	VF=0V;f=1MHz
VF [2]	Forward Voltage Per Segment Or (DP)	Yellow	8.4 (4.2)	10.0 (5.0)	V	I==20mA
lR	Reverse Current Per Segment Or (DP)	Yellow		20 (10)	uA	V _R =5V (V _R =5V)

Absolute Maximum Ratings at TA=25°C

Parameter	Yellow	Units		
Power dissipation Per Segment Or (DP)	600 (150)	mW		
DC Forward Current Per Segment Or (DP)	60 (30)	mA		
Peak Forward Current [1] Per Segment Or (DP)	280 (140)	mA		
Reverse Voltage Per Segment Or (DP)	5 (5)	V		
Operating / Storage Temperature	e -40°C To +85°C			
Lead Solder Temperature[2]	260°C For 3-5 Seconds			

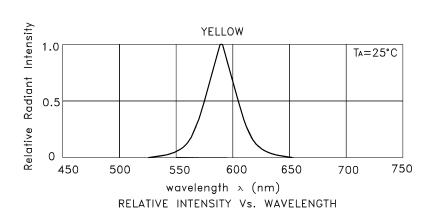
1. 1/10 Duty Cycle, 0.1ms Pulse Width.

2. 2mm below package base.

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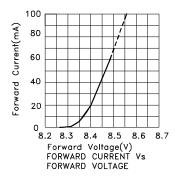
^{1.} Luminous intensity/ luminous Flux: +/-15%.

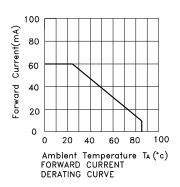
Notes: 1.Wavelength: +/-1nm. 2. Forward Voltage: +/-0.1V.

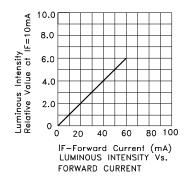


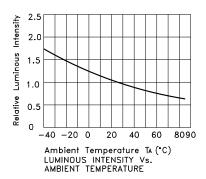
Yellow

SC40-19YWA

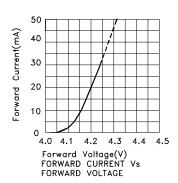


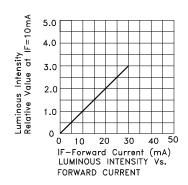


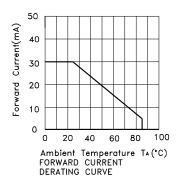


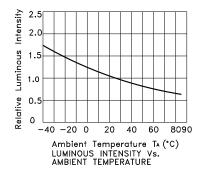


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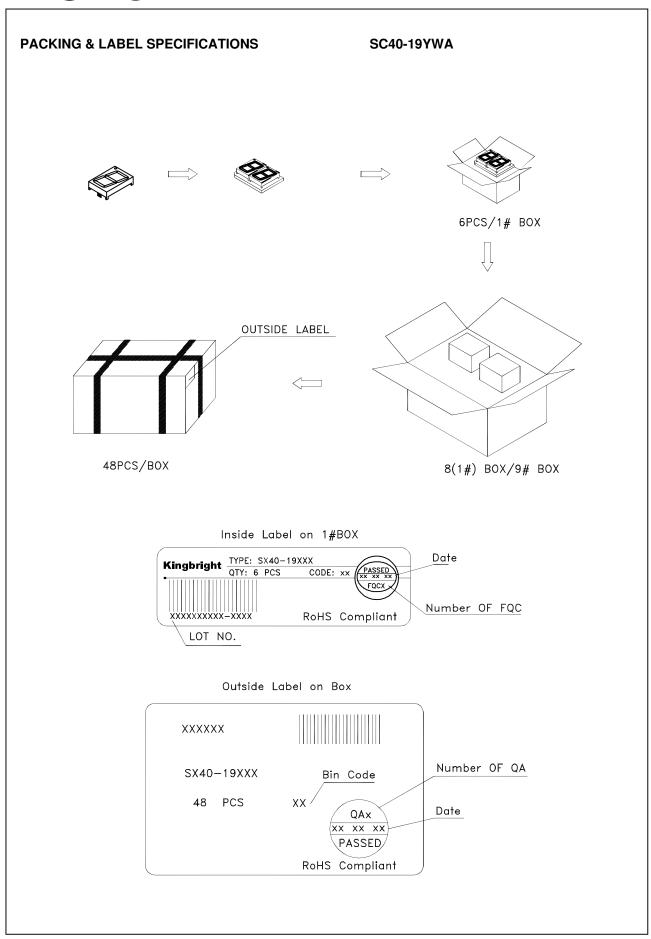








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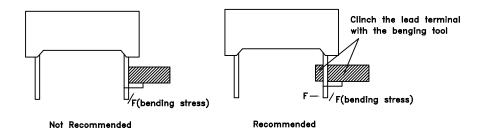


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THROUGH HOLE DISPLAY MOUNTING METHOD

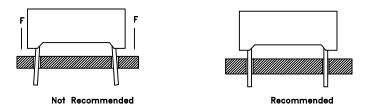
Lead Forming

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.



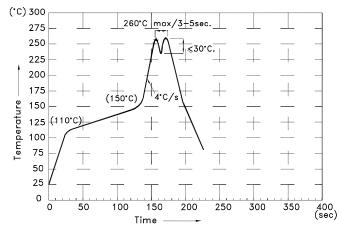
Installation

- 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 \sim 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:

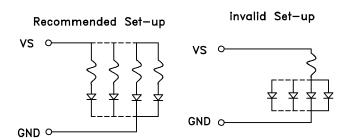
- a. Through—hole displays are incompatible with reflow soldering.
- b. If components will undergo multiple soldering processes, or other processes where the components may be subjected to intense heat, please check with Kingbright for compatibility.

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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