SURFACE MOUNT DISPLAY

Part Number: ACSC56-41QBWA/D-F01



ATTENTION **OBSERVE PRECAUTIONS** FOR HANDLING ELECTROSTATIC DISCHARGE SENSITIVE **DEVICES**

Blue

Features

- 0.56 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

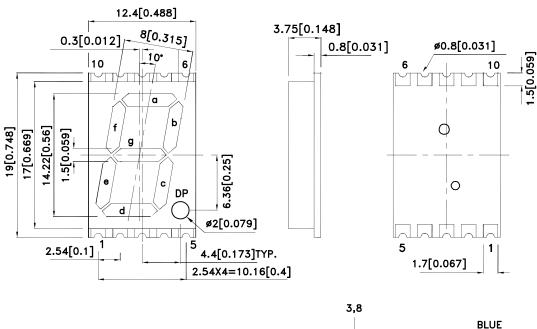
The Blue source color devices are made with InGaN Light Emitting Diode.

Static electricity and surge damage the LEDS.

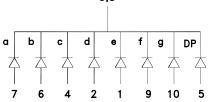
It is recommended to use a wrist band or anti-electrostatic glove when handling the LEDs.

All devices, equipment and machinery must be electrically grounded.

Package Dimensions& Internal Circuit Diagram











- 1. All dimensions are in millimeters (inches), Tolerance is ±0.25(0.01")unless otherwise noted.
- The specifications, characteristics and technical data described in the datasheet are subject to change without prior notice.
 The gap between the reflector and PCB shall not exceed 0.25mm

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Selection Guide

Part No.	Dice	Lens Type	lv (ucd) [1] @ 10mA		Description
		,,	Min.	Тур.	
ACSC56-41QBWA/D-F01	Blue (InGaN)	White Diffused	5600	15000	Common Cathode, Rt. Hand Decimal.

- 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	Тур.	Max.	Units	Test Conditions		
λpeak	Peak Wavelength	Blue	460		nm	IF=20mA		
λD [1]	Dominant Wavelength	Blue	465		nm	IF=20mA		
Δλ1/2	Spectral Line Half-width	Blue	25		nm	IF=20mA		
С	Capacitance	Blue	100		pF	VF=0V;f=1MHz		
VF [2]	Forward Voltage	Blue	3.3	4.0	V	IF=20mA		
lr	Reverse Current	Blue		50	uA	V _R =5V		

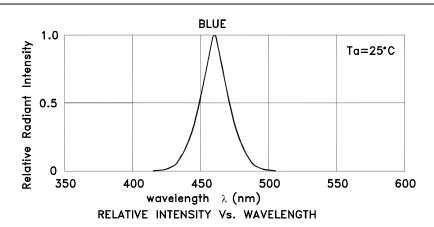
- 1. Wavelength: +/-1nm. 2. Forward Voltage: +/-0.1V. 3. Wavelength value is traceable to the CIE127-2007 compliant national standards.

Absolute Maximum Ratings at TA=25°C

Parameter	Blue	Units	
Power dissipation	120	mW	
DC Forward Current	30	mA	
Peak Forward Current [1]	150	mA	
Reverse Voltage	5	V	
Operating / Storage Temperature	-40°C To +85°C		

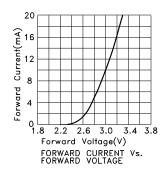
1. 1/10 Duty Cycle, 0.1ms Pulse Width.

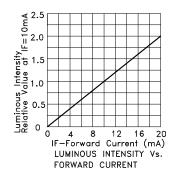
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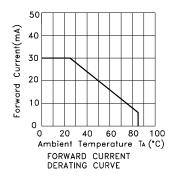


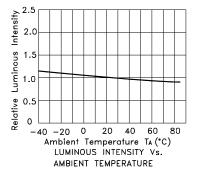
Blue

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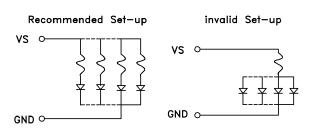






CIRCUIT DESIGN NOTES

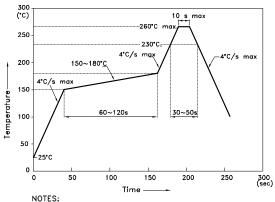
- 1.Protective current—limiting resistors may be necessary to operate the Displays.
- 2.LEDs mounted in parallel should each be placed in series with its own current—limiting resistor.



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Reflow Soldering Profile For Lead-free SMT Process.



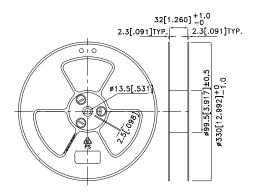
- NOTES:

 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.

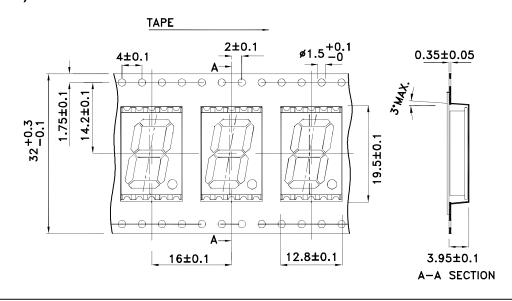
Recommended Soldering Pattern (Units: mm; Tolerance: ± 0.15)

2.54X4=10.16 1.7 2.54

Reel Dimension



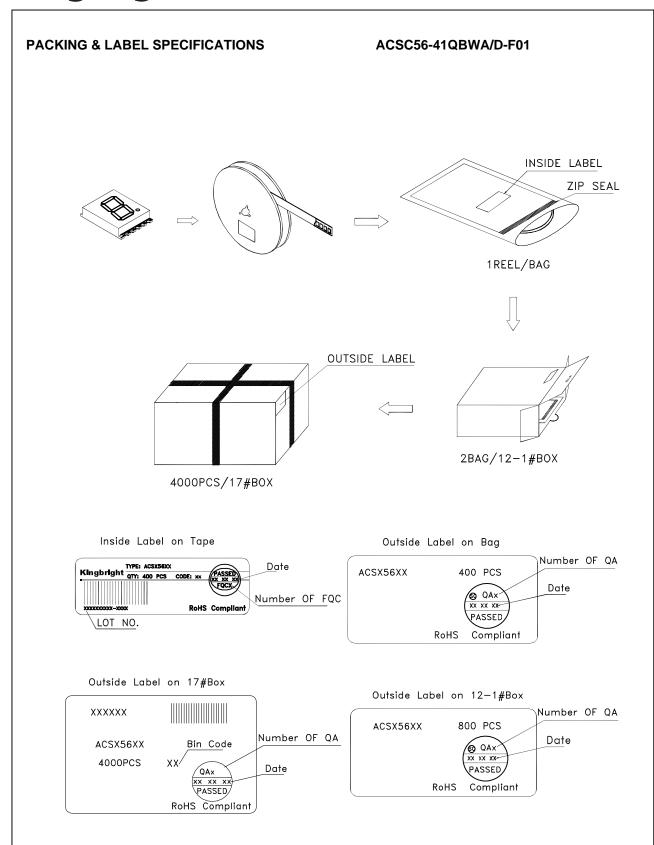
Tape Specifications (Units: mm)



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

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