SURFACE MOUNT DISPLAY

Part Number: ACDA56-51PBWA/A

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

Features

- 0.56 inch digit height.
- Low current operation.
- Excellent character appearance.
- Mechanically rugged.
- Gray face, white segment.
- Package: 200pcs/ reel.
- Moisture sensitivity level : level 2a.
- RoHS compliant.

Description

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

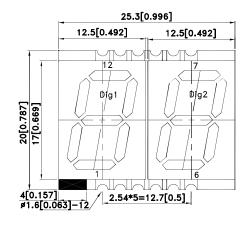
Static electricity and surge damage the LEDS.

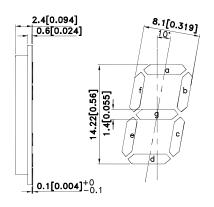
It is recommended to use a wrist band or anti-electrostatic glove when handling the LEDs.

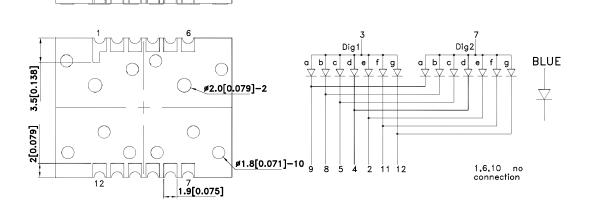
Blue

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.
- 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.

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Selection Guide

Part No.	Dice	Lens Type	lv (ucd) [1] Lens Type @ 10mA		Description	
			Min.	Тур.	-	
ACDA56-51PBWA/A	Blue (InGaN)	White Diffused	1400	4000	Common Anode	

Notes:

- 1. Luminous intensity/ luminous Flux: +/-15%.
 2. 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	468	*468		nm	IF=20mA
λD [1]	Dominant Wavelength	Blue	470	*465		nm	IF=20mA
Δλ1/2	Spectral Line Half-width	Blue	21			nm	IF=20mA
С	Capacitance	Blue	100			pF	VF=0V;f=1MHz
VF [2]	Forward Voltage	Blue	3.2		4.0	V	IF=20mA
lR	Reverse Current	Blue	Blue		10	uA	V _R =5V

Notes:

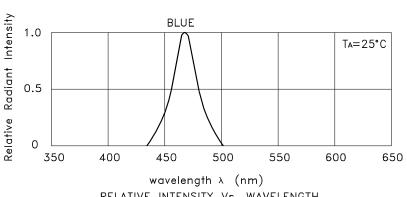
- 1.Wavelength: +/-1nm.
 2. Forward Voltage: +/-0.1V.
 * Wavelength value is traceable to the CIE127-2007 compliant national standards.

Absolute Maximum Ratings at TA=25°C

Parameter	Blue	Units	
Power dissipation	120	mW	
DC Forward Current	30	mA	
Peak Forward Current [1]	100	mA	
Reverse Voltage	5	V	
Operating / Storage Temperature	-40°C To +85°C		

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

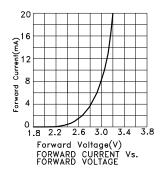
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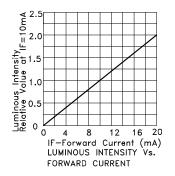


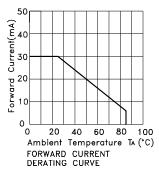
RELATIVE INTENSITY Vs. WAVELENGTH

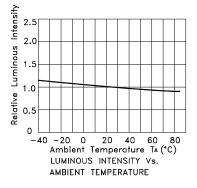
Blue

ACDA56-51PBWA/A



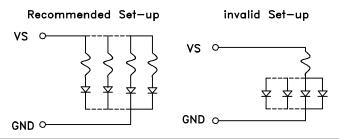






CIRCUIT DESIGN NOTES

- 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.



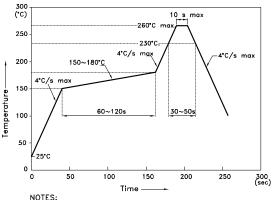
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Reflow Soldering Profile For Lead-free SMT Process.



- NOTES:

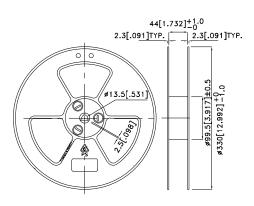
 1.We recommend the reflow temperature 245°C(+/-5°C). The maximum soldering temperature should be limited to 260°C.

 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.

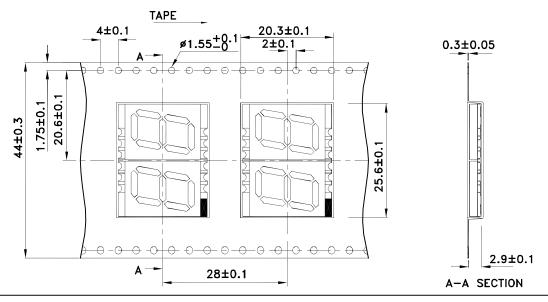
Recommended Soldering Pattern (Units: mm; Tolerance: ± 0.15)

2.54x5=12.7 2.54x5=12.7 2.54 1.9

Reel Dimension



Tape Specifications (Units: mm)



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ACDxxx56x

1000 PCS

PACKING & LABEL SPECIFICATIONS ACDA56-51PBWA/A INSIDE LABEL ZIP SEAL 200PCS/REEL 1REEL/BAG OUTSIDE LABEL 1BAG/12-1# BOX 1000PCS/17#BOX Inside LABEL On Tape Outside LABEL On BAG Number OF QA Kingbright TYPE: ACDxxx56x QTY: 200 PCS CODE: xx Date ACDxxx56x 200 PCS Date QAX Number OF FQC RoHS Compliant XX XX XX PASSED/ LOT NO. RoHS Compliant Outside LABEL On 17#Box Outside LABEL On 12-1#Box xxxxx Number OF QA ACDxxx56x 200 PCS

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

Number OF QA

Date

Bin Code

PASSED RoHS Compliant Date

QAX

Compliant

RoHS

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