### SURFACE MOUNT DISPLAY



ATTENTION
OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
DISCHARGE
SENSITIVE
DEVICES

Part Number: ACDC56-41ZGWA-F01 Green

### **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

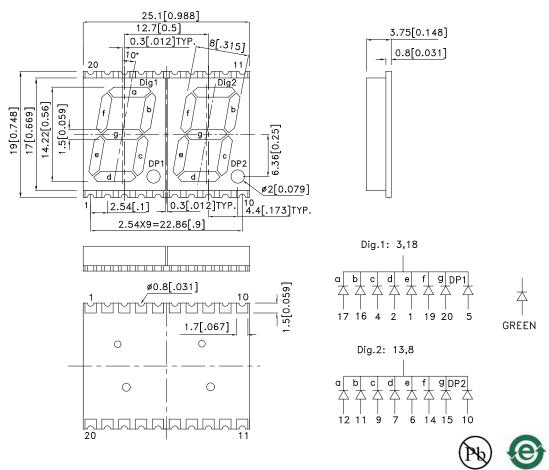
The Green source color devices are made with InGaN on Sapphire Light Emitting Diode.

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



#### Notes:

APPROVED: WYNEC

- 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.

SPEC NO: DSAK0390 REV NO: V.3

REV NO: V.3 DATE: MAR/19/2011 PAGE: 1 OF 5
CHECKED: Joe Lee DRAWN: J.Yu ERP: 1352000566

### **Selection Guide**

Part No.	Dice	Lens Type	lv (uc @ 10	,	Description
		,,	Min.	Тур.	
ACDC56-41ZGWA-F01	Green (InGaN)	White Diffused	88000	220000	Common Cathode,Rt. Hand Decimal

#### Note:

### Electrical / Optical Characteristics at TA=25°C

Symbol	Parameter	Device	Тур.	Max.	Units	Test Conditions
λpeak	Peak Wavelength	Green	515		nm	IF=20mA
λD [1]	Dominant Wavelength	Green	525		nm	IF=20mA
Δλ1/2	Spectral Line Half-width	Green	30		nm	IF=20mA
С	Capacitance	Green	45		pF	VF=0V;f=1MHz
VF [2]	Forward Voltage	Green	3.3	4.1	V	IF=20mA
lr	Reverse Current	Green		50	uA	V <sub>R</sub> =5V

### Absolute Maximum Ratings at TA=25°C

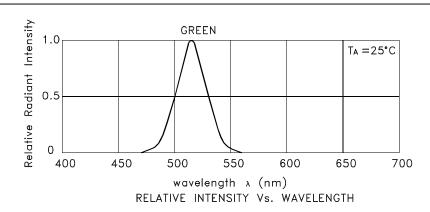
Parameter	Green	Units		
Power dissipation	102.5	mW		
DC Forward Current	25	mA		
Peak Forward Current [1]	150	mA		
Reverse Voltage	5	V		
Operating / Storage Temperature	-40°C To +85°C			

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

SPEC NO: DSAK0390 **REV NO: V.3** DATE: MAR/19/2011 PAGE: 2 OF 5 APPROVED: WYNEC **CHECKED:** Joe Lee DRAWN: J.Yu ERP: 1352000566

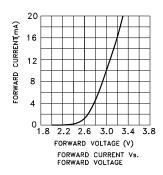
<sup>1.</sup> Luminous intensity/ luminous Flux: +/-15%.

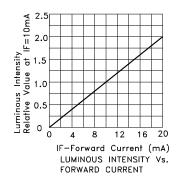
Notes: 1.Wavelength: +/-1nm. 2. Forward Voltage: +/-0.1V.

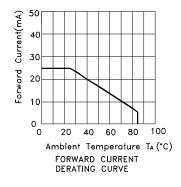


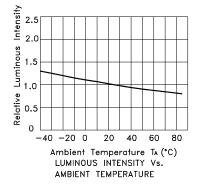
#### Green

### ACDC56-41ZGWA-F01



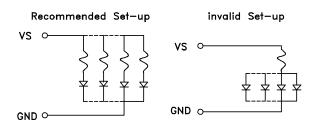






### CIRCUIT DESIGN NOTES

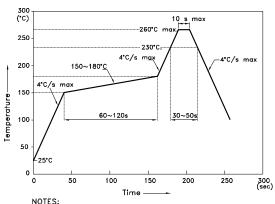
- 1.Protective current—limiting resistors may be necessary to operate the Displays.
- 2.LEDs mounted in parallel should each be placed in series with its own current—limiting resistor.



SPEC NO: DSAK0390 APPROVED: WYNEC REV NO: V.3 CHECKED: Joe Lee DATE: MAR/19/2011 DRAWN: J.Yu PAGE: 3 OF 5 ERP: 1352000566

### ACDC56-41ZGWA-F01

Reflow Soldering Profile For Lead-free SMT Process.



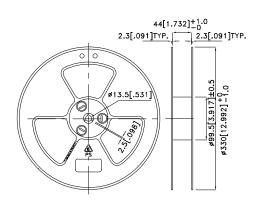
- NOTES:

  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)

# 2.54X9 = 22.862.54 1.7

### **Reel Dimension**



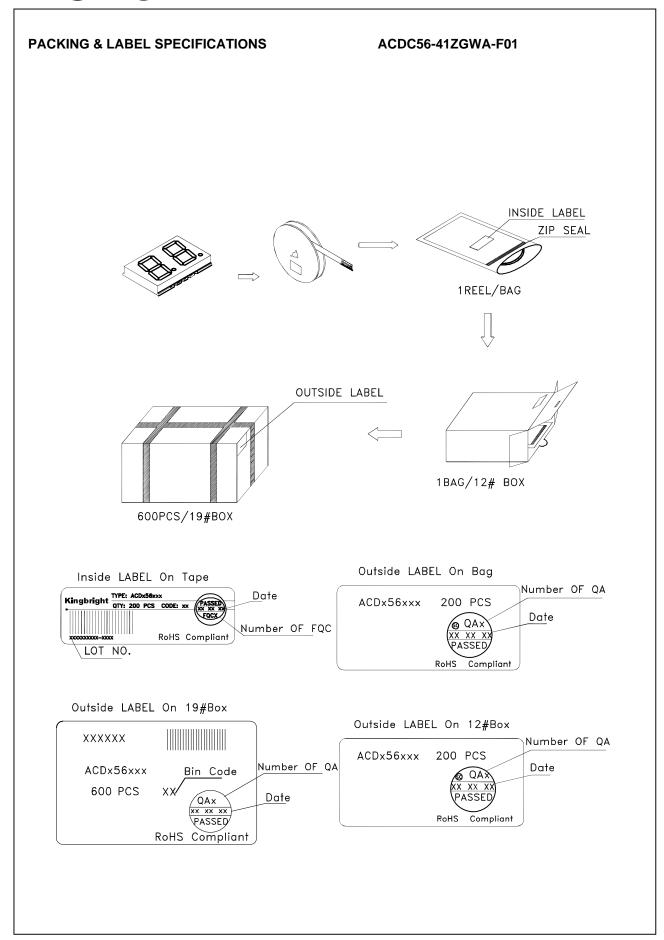
### **Tape Specifications** (Units: mm)

TAPE  $\emptyset 1.5^{+0.1}_{-0}$ 2±0.1 4±0.1 0.35±0.05 1.75±0.1  $20.2\pm0.$  $9.5\pm0.1$ 25.6±0.1 -o-o-o|o-o-o-o-o-o|o-o-o 3.95±0.1  $32 \pm 0.1$ 

SPEC NO: DSAK0390 **APPROVED: WYNEC** 

**REV NO: V.3 CHECKED:** Joe Lee DATE: MAR/19/2011 DRAWN: J.Yu

PAGE: 4 OF 5 ERP: 1352000566



SPEC NO: DSAK0390 APPROVED: WYNEC REV NO: V.3 CHECKED: Joe Lee DATE: MAR/19/2011 DRAWN: J.Yu PAGE: 5 OF 5 ERP: 1352000566