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[Kingbright](#)
[ACDA56-51CGKWA](#)

For any questions, you can email us directly:

sales@integrated-circuit.com

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SURFACE MOUNT DISPLAY

Part Number: ACDA56-51CGKWA Green

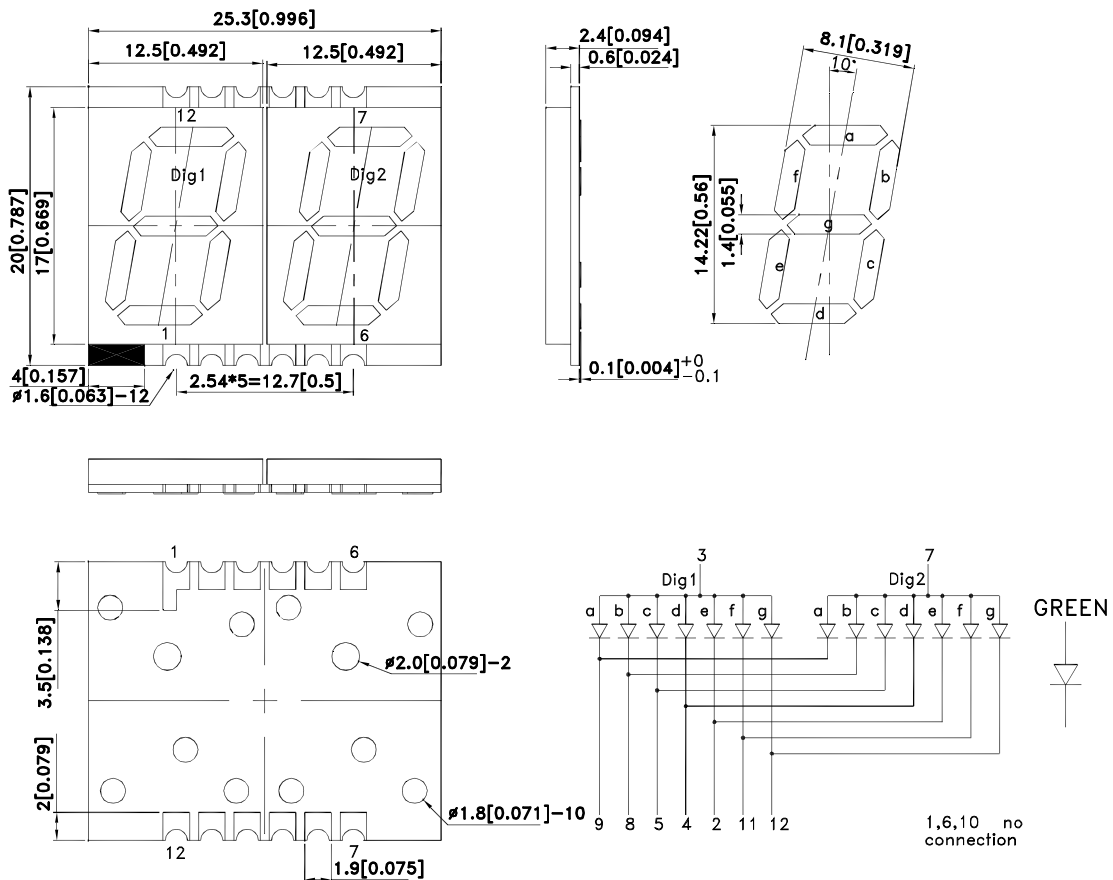
Features

- 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 AlGaInP on GaAs substrate Light Emitting Diode.

Package Dimensions & Internal Circuit Diagram



Notes:

1. All dimensions are in millimeters (inches), Tolerance is $\pm 0.25(0.01)$ 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	Iv (ucd) [1] @ 10mA		Description
			Min.	Typ.	
ACDA56-51CGKWA	Green (AlGaInP)	White Diffused	14000	26000	Common Anode

Note:

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

Electrical / Optical Characteristics at TA=25°C

Symbol	Parameter	Device	Code.	Min.	Typ.	Max.	Units	Test Conditions
λ_{peak}	Peak Wavelength	Green			574		nm	I _F =20mA
λ_D [1]	Dominant Wavelength	Green	4	565		567	nm	I _F =20mA
			5	567		569		
			6	569		571		
$\Delta\lambda_{1/2}$	Spectral Line Half-width	Green			20		nm	I _F =20mA
C	Capacitance	Green			15		pF	V _F =0V;f=1MHz
V _F [2]	Forward Voltage	Green			2.1	2.5	V	I _F =20mA
I _R	Reverse Current	Green				10	uA	V _R =5V

Notes:

1. Wavelength: +/-1nm.

2. Forward Voltage: +/-0.1V.

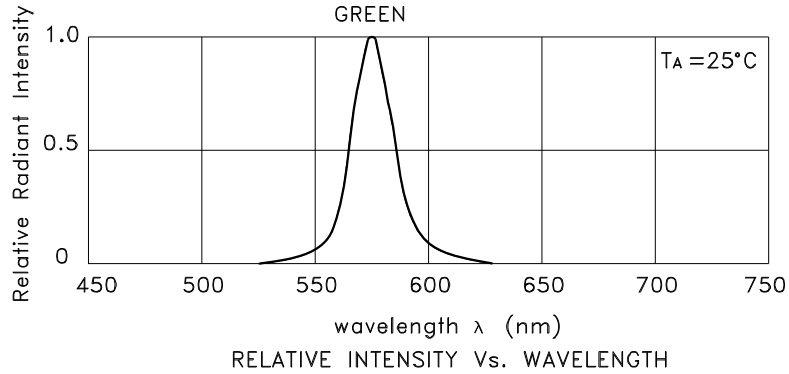
Absolute Maximum Ratings at TA=25°C

Parameter	Green	Units
Power dissipation	75	mW
DC Forward Current	30	mA
Peak Forward Current [1]	150	mA
Reverse Voltage	5	V
Electrostatic Discharge Threshold (HBM)	3000	V
Operating / Storage Temperature	-40°C To +85°C	

Note:

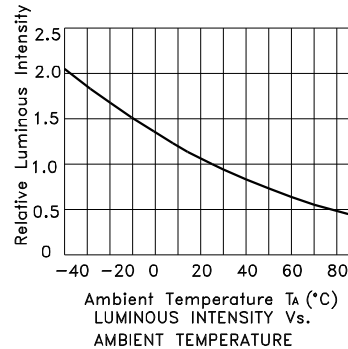
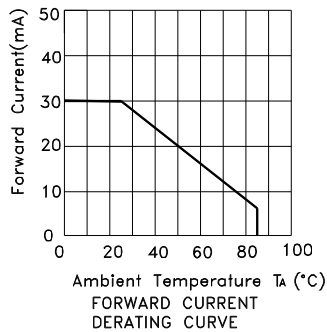
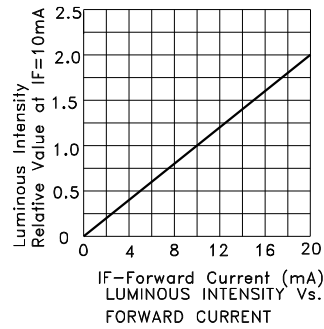
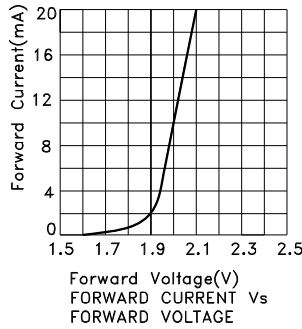
1. 1/10 Duty Cycle, 0.1ms Pulse Width.

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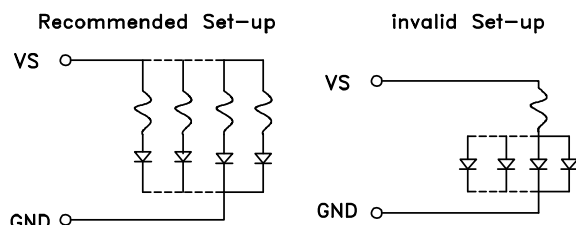
Green

ACDA56-51CGKWA



CIRCUIT DESIGN NOTES

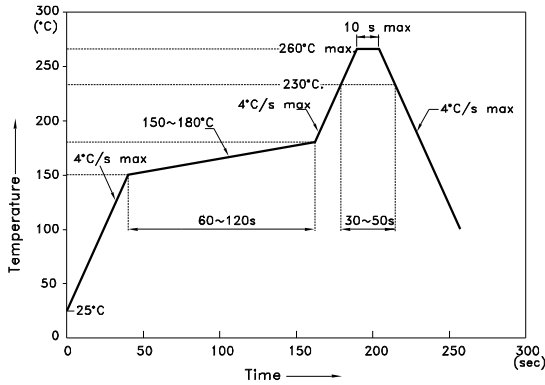
1. Protective current-limiting resistors may be necessary to operate the Displays.
2. LEDs mounted in parallel should each be placed in series with its own current-limiting resistor.



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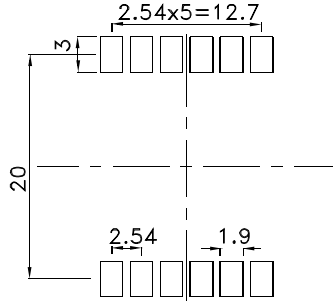
Reflow Soldering Profile For Lead-free SMT Process.



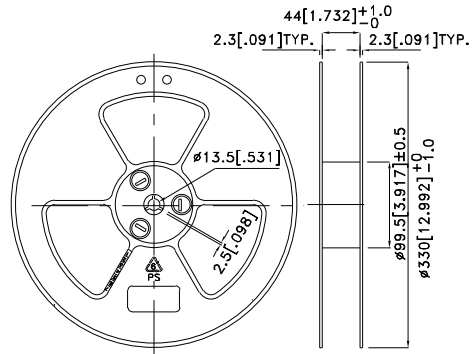
NOTES:

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.

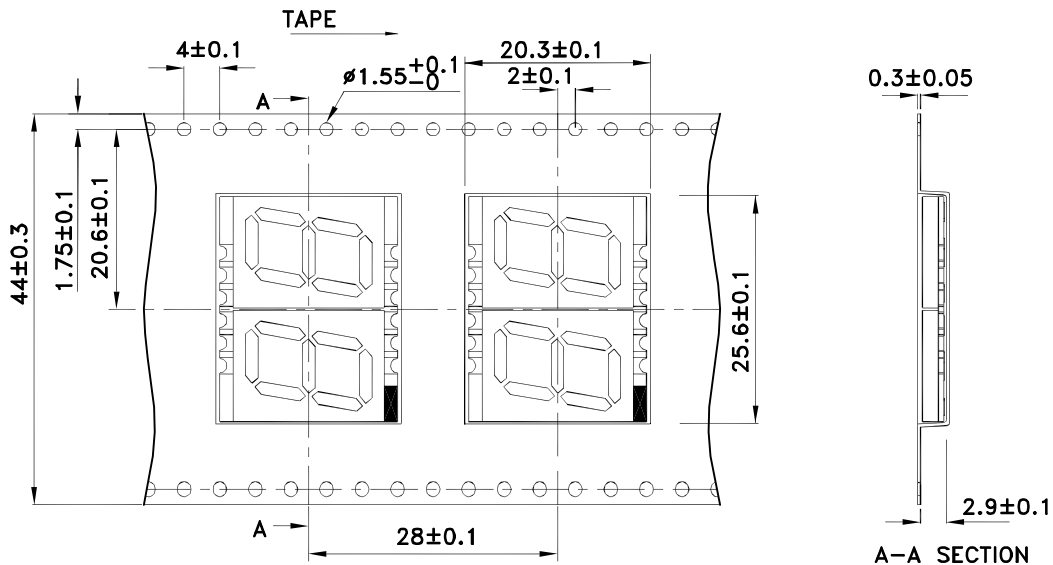
Recommended Soldering Pattern (Units : mm; Tolerance: ± 0.15)



Reel Dimension



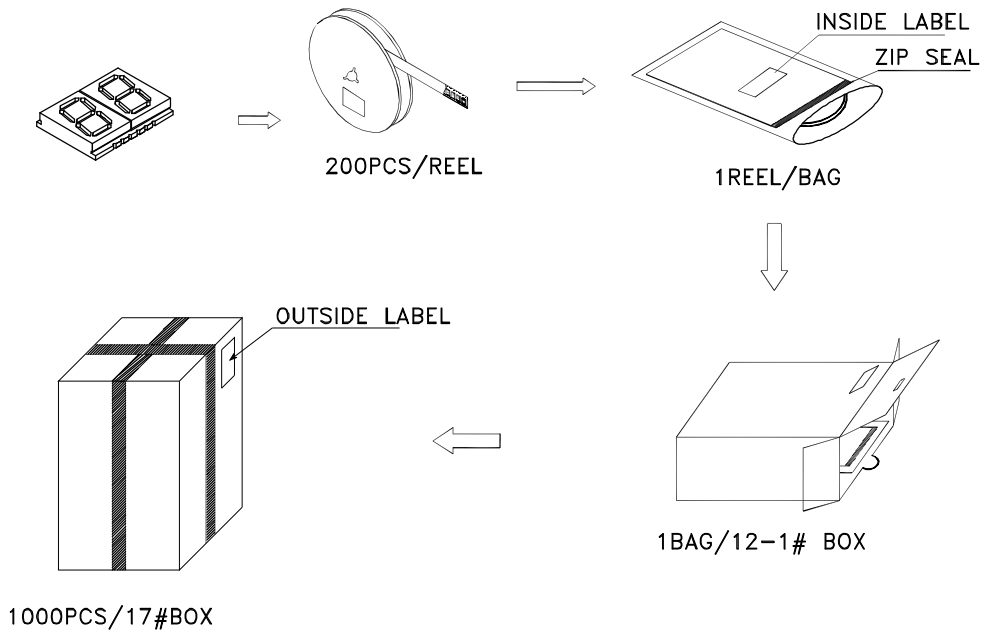
Tape Specifications (Units : mm)



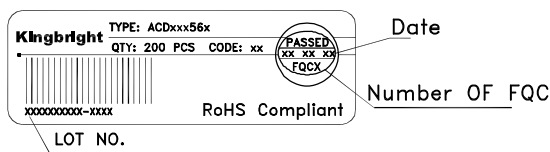
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PACKING & LABEL SPECIFICATIONS

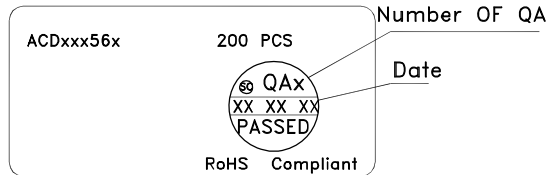
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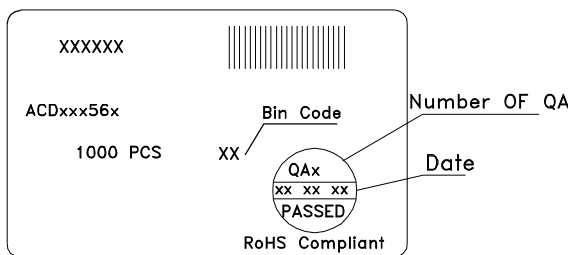
Inside LABEL On Tape



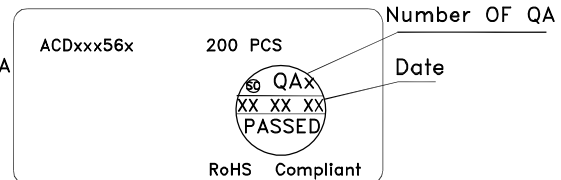
Outside LABEL On BAG



Outside LABEL On 17#Box



Outside LABEL On 12-1#Box



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