

#### 3.5 x2.8mm SMD CHIP LED LAMP

Part Number: APED3528ZGC-F01

Green



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

#### **Features**

- Single color.
- Suitable for all SMT assembly and solder process.
- Ideal for backlighting.
- Available on tape and reel.
- Package: 500pcs / reel.
- Moisture sensitivity level : level 3.
- RoHS compliant.

#### Description

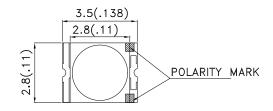
The Green source color devices are made with InGaN on Sapphire Light Emitting Diode.

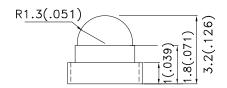
Static electricity and surge damage the LEDS.

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

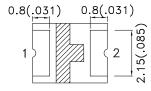
All devices, equipment and machinery must be electrically grounded.

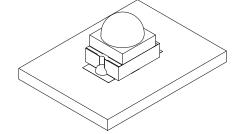
#### **Package Dimensions**











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- 1. All dimensions are in millimeters (inches).
- 2. Tolerance is  $\pm 0.2 (0.008")$  unless otherwise noted.
- The specifications, characteristics and technical data described in the datasheet are subject to change without prior notice.
   The device has a single mounting surface. The device must be mounted according to the specifications.

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## **Selection Guide**

Part No.	Dice	Lens Type	lv (mcd) [2] @ 20mA		Viewing Angle [1]
		2.	Min.	Тур.	201/2
APED3528ZGC-F01	Green (InGaN)	Water Clear	1000	1600	40°

#### Notes:

- 1. 01/2 is the angle from optical centerline where the luminous intensity is 1/2 of the optical peak value.
  2. Luminous intensity/ luminous Flux: +/-15%.
  3. 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	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	VR=5V

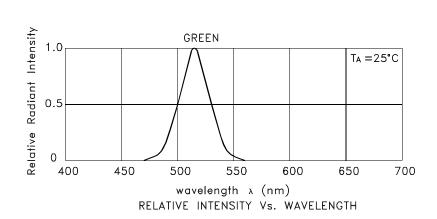
- Notes:
  1.Wavelength: +/-1nm.
  2. Forward Voltage: +/-0.1V.
  3. Wavelength value is traceable to the CIE127-2007 compliant national standards.

## Absolute Maximum Ratings at TA=25°C

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

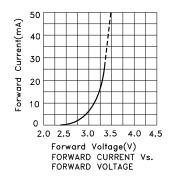
1. 1/10 Duty Cycle, 0.1ms Pulse Width.

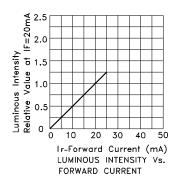
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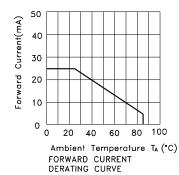


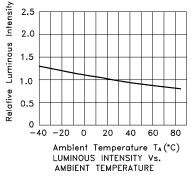
Green

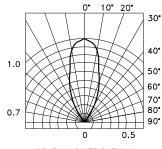
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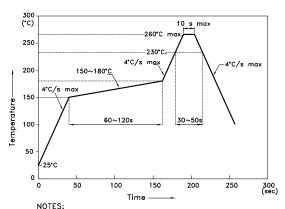
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Reflow soldering is recommended and the soldering profile is shown below. Other soldering methods are not recommended as they might cause damage to the product.

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.
  - to high temperature.

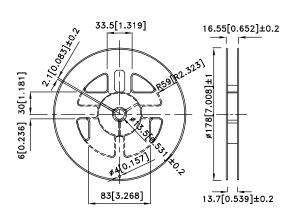
    3.Number of reflow process shall be 2 times or less.

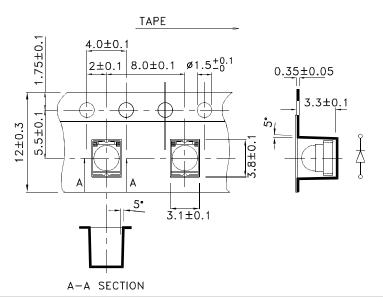
## Recommended Soldering Pattern (Units: mm; Tolerance: ± 0.1)

# 7.5 1.6 1.5

## Tape Dimensions (Units : mm)

#### **Reel Dimension**

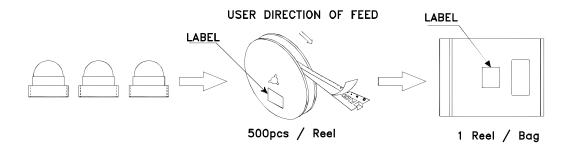


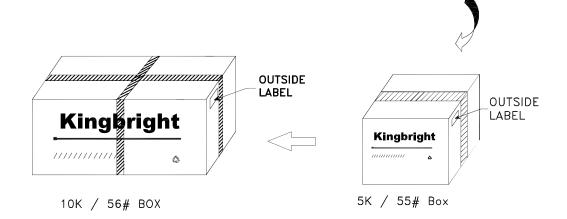


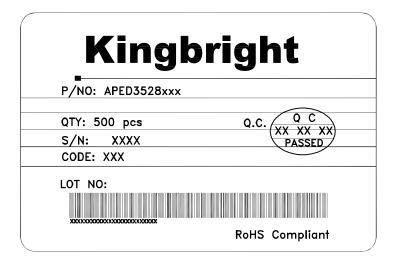
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#### **PACKING & LABEL SPECIFICATIONS**

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

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