

### PRELIMINARY SPEC

Part Number: APD3224ZGC-F01

Green



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

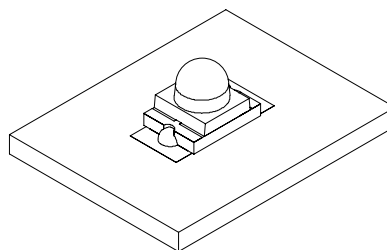
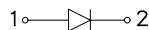
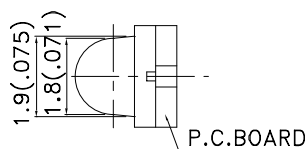
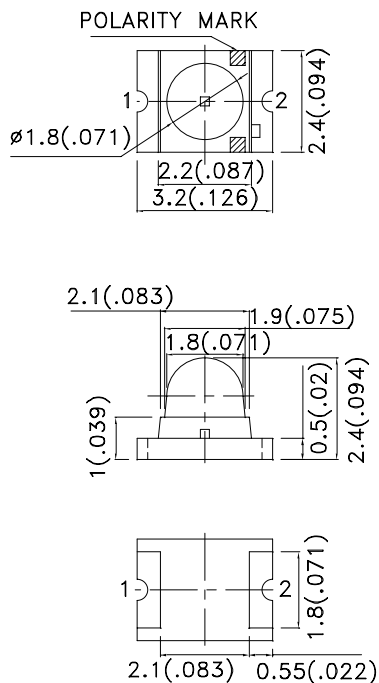
### Features

- 3.2x2.4mm SMT LED, 2.4mm THICKNESS.
- LOW POWER CONSUMPTION.
- IDEAL FOR BACKLIGHT AND INDICATOR.
- VARIOUS COLORS AND LENS TYPES AVAILABLE.
- PACKAGE : 1500PCS / REEL.
- MOISTURE SENSITIVITY LEVEL : LEVEL 3.
- RoHS COMPLIANT.

### Description

The Green source color devices are made with AlInGaN 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



#### Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is  $\pm 0.1(0.004)$  unless otherwise noted.
3. Specifications are subject to change without notice.
4. The device has a single mounting surface. The device must be mounted according to the specifications.



## Selection Guide

| Part No.       | Dice            | Lens Type   | Iv (mcd) [2]<br>@ 20mA |      | Viewing<br>Angle [1] |
|----------------|-----------------|-------------|------------------------|------|----------------------|
|                |                 |             | Min.                   | Typ. | 2θ1/2                |
| APD3224ZGC-F01 | Green (AlInGaN) | WATER CLEAR | 1200                   | 2400 | 20°                  |

Notes:

1. θ1/2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.
2. Luminous intensity/ luminous Flux: +/-15%.

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

| Symbol             | Parameter                | Device | Typ. | Max. | Units | Test Conditions            |
|--------------------|--------------------------|--------|------|------|-------|----------------------------|
| λ <sub>peak</sub>  | Peak Wavelength          | Green  | 515  |      | nm    | I <sub>F</sub> =20mA       |
| λ <sub>D</sub> [1] | Dominant Wavelength      | Green  | 525  |      | nm    | I <sub>F</sub> =20mA       |
| Δλ <sub>1/2</sub>  | Spectral Line Half-width | Green  | 30   |      | nm    | I <sub>F</sub> =20mA       |
| C                  | Capacitance              | Green  | 45   |      | pF    | V <sub>F</sub> =0V; f=1MHz |
| V <sub>F</sub> [2] | Forward Voltage          | Green  | 3.3  | 4.1  | V     | I <sub>F</sub> =20mA       |
| I <sub>R</sub>     | Reverse Current          | Green  |      | 10   | uA    | V <sub>R</sub> =5V         |

Notes:

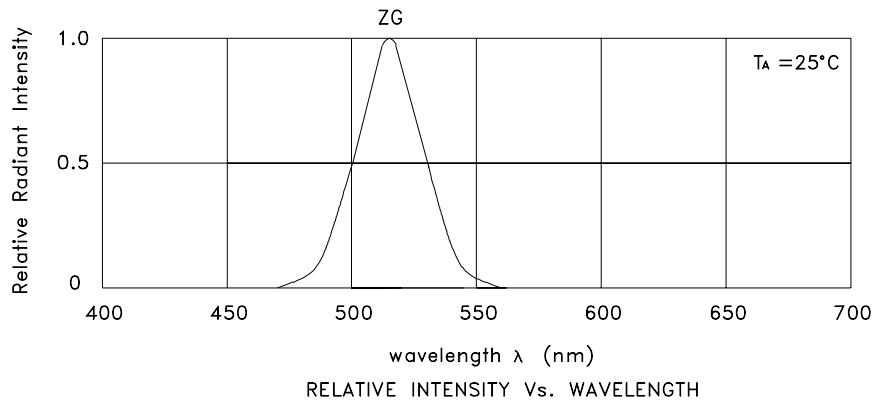
1. Wavelength: +/-1nm.
2. Forward Voltage: +/-0.1V.

## 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 |       |

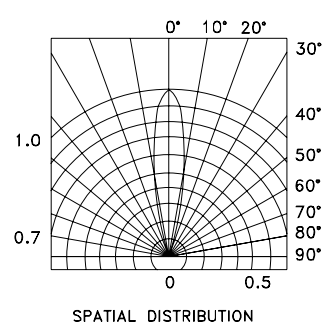
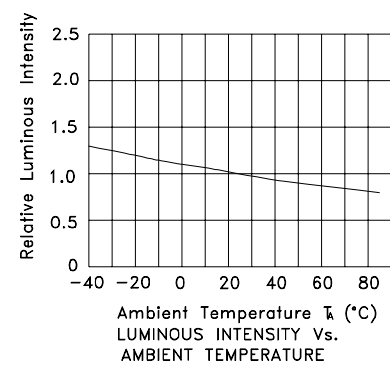
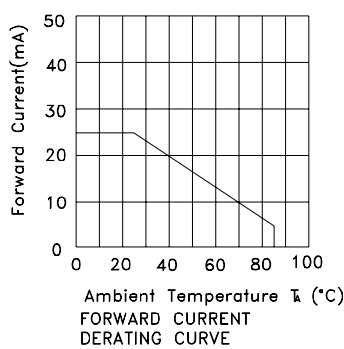
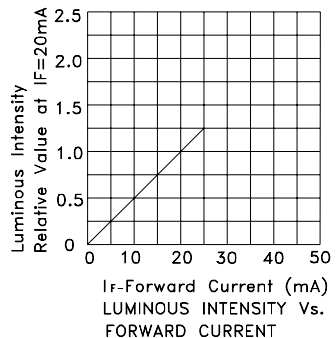
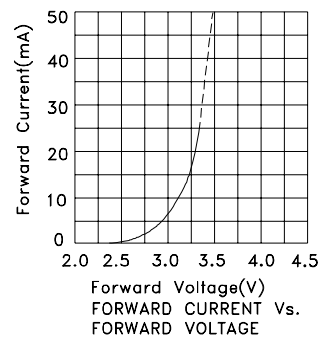
Note:

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



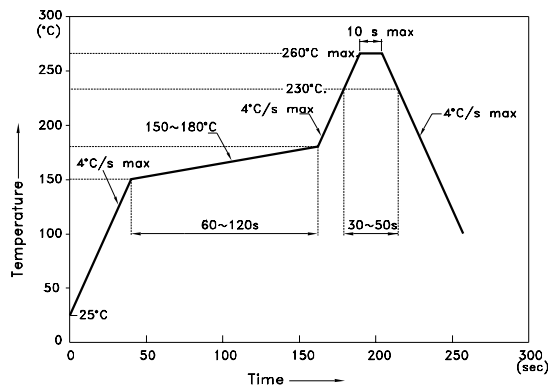
Green

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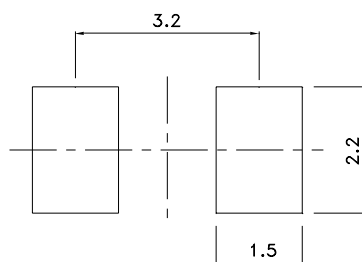
### Reflow Soldering Profile For Lead-free SMT Process.



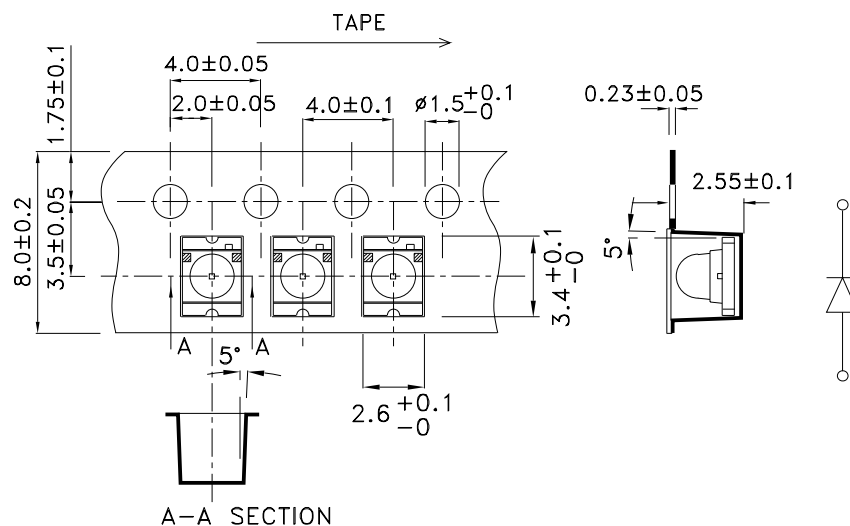
#### NOTES:

1. We recommend the reflow temperature  $245^{\circ}\text{C} (+/-5^{\circ}\text{C})$ . The maximum soldering temperature should be limited to  $260^{\circ}\text{C}$ .
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: $\pm 0.1$ )

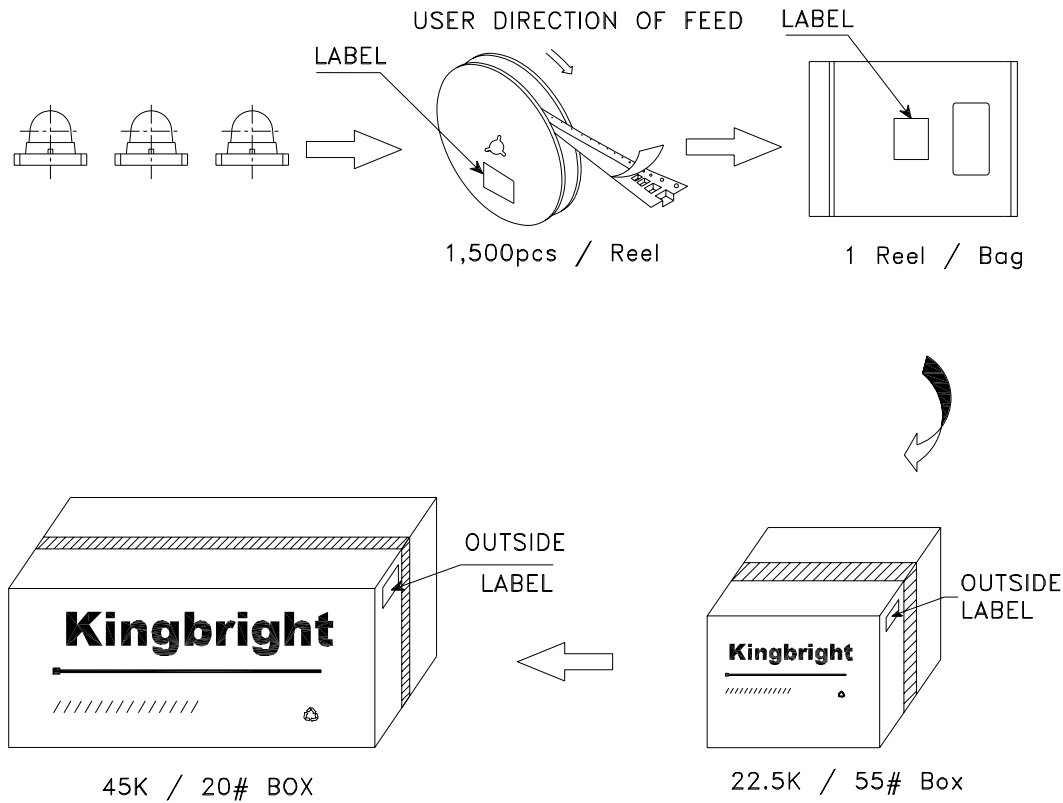



### Tape Specifications (Units : mm)



PACKING & LABEL SPECIFICATIONS

APD3224ZGC-F01



|  |   |
|--|---|
| <b>Kingbright</b>  |   |
| P/NO: APD3224xxx   |   |
| QTY: 1,500 pcs   | Q.C. <div>Q C<br/>xx xx xxxx<br/>PASSED</div> |
| S/N: XXXX  |   |
| CODE: XXX  |   |
| LOT NO:  |   |
|  |   |
| xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx   |   |
| MADE IN CHINA  | RoHS Compliant                                |