

PRELIMINARY SPEC

Part Number: APKA4110ZGC-F01

Green



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

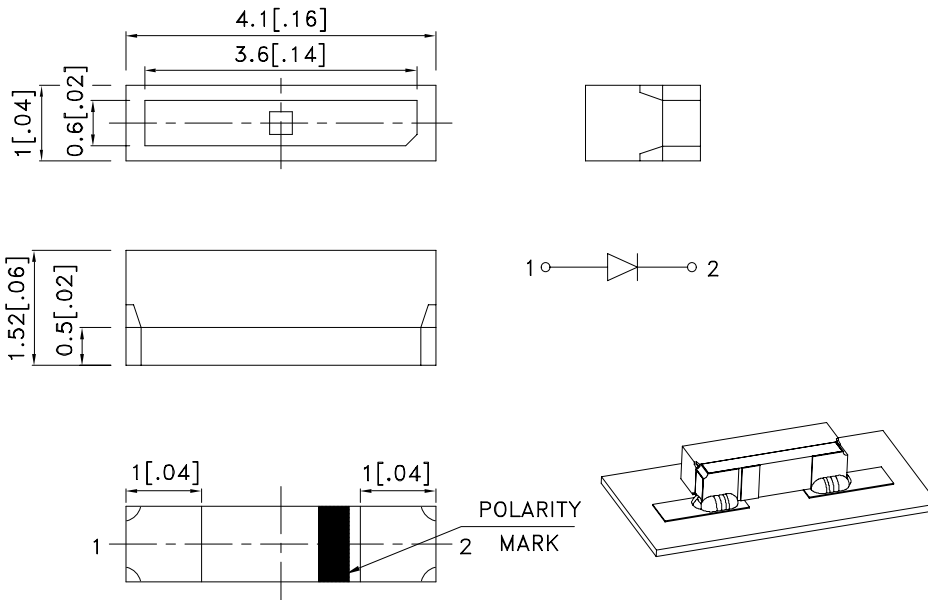
**Features**

- 4.1mm x 1.0mm RIGHT ANGLE SMT LED, 1.52mm THICKNESS.
- LOW POWER CONSUMPTION.
- WIDE VIEWING ANGLE.
- IDEAL FOR BACKLIGHT AND INDICATOR
- VARIOUS COLORS AND LENS TYPES AVAILABLE.
- PACKAGE: 2000PCS/REEL.
- MOISTURE SENSITIVITY LEVEL : LEVEL 4.
- 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  $\pm 0.25(0.01")$  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                |
| APKA4110ZGC-F01 | Green (AlInGaN) | WATER CLEAR | 110                    | 300  | 90°                  |

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           |
|-----------------------|--------------------------|--------|------|------|-------|---------------------------|
| $\lambda_{peak}$      | Peak Wavelength          | Green  | 515  |      | nm    | I <sub>F</sub> =20mA      |
| $\lambda_D$ [1]       | Dominant Wavelength      | Green  | 525  |      | nm    | I <sub>F</sub> =20mA      |
| $\Delta\lambda_{1/2}$ | 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:

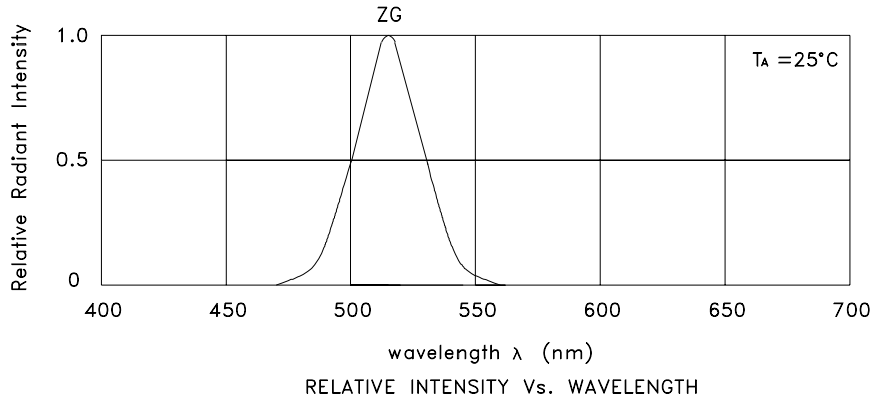
1. Wavelength: +/-1nm.
2. Forward Voltage: +/-0.1V.

## 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 |       |

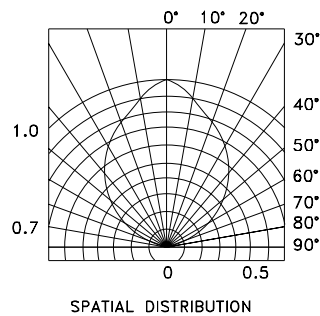
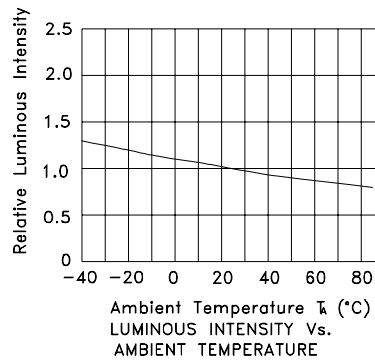
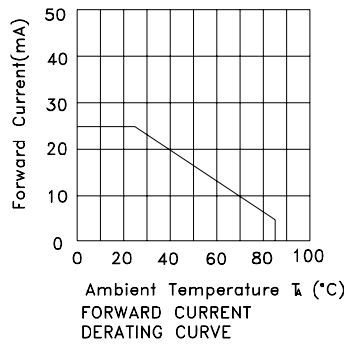
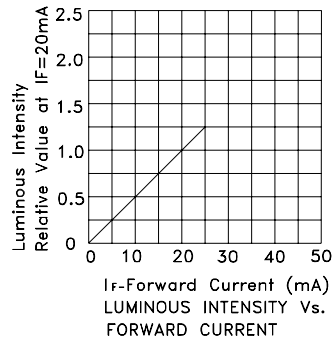
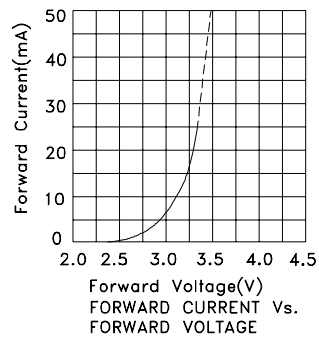
Note:

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



Green

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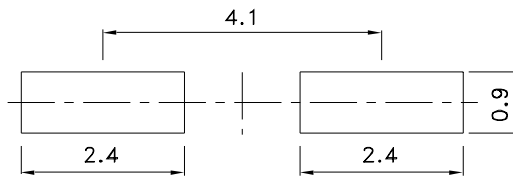
Reflow Soldering Profile For Lead-free SMT Process.



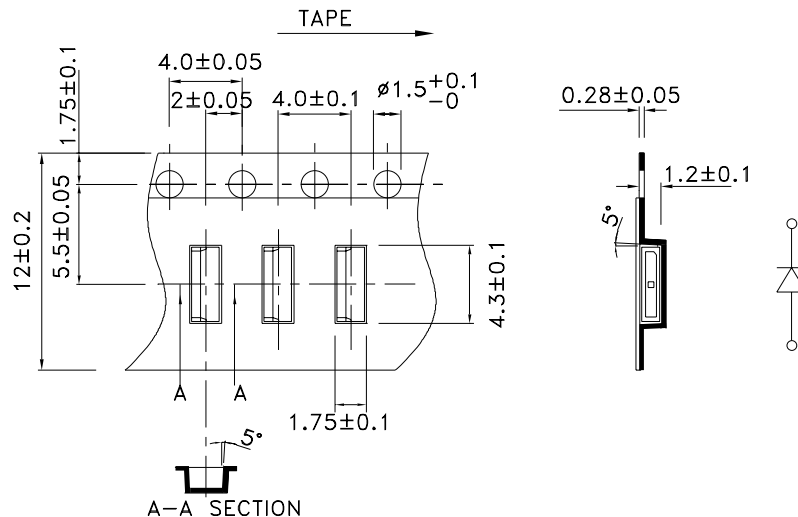
NOTES:

1. We recommend the reflow temperature 245°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: ± 0.1)

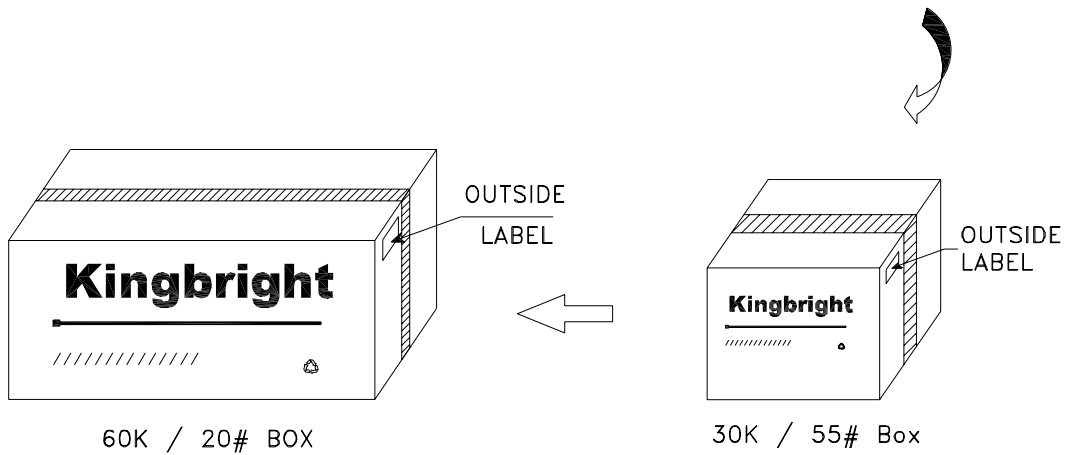
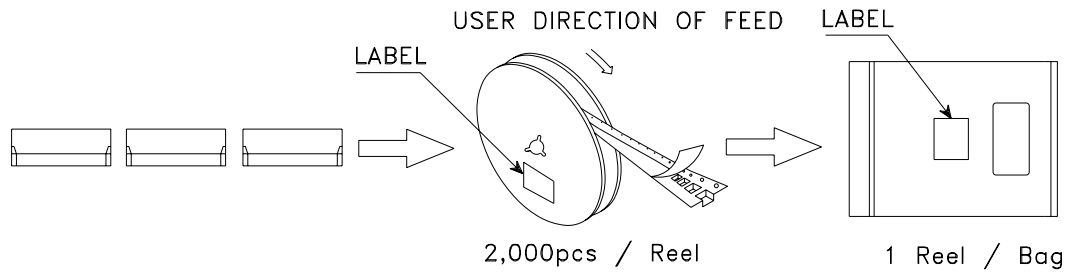



### Tape Specifications (Units : mm)



**PACKING & LABEL SPECIFICATIONS**

**APKA4110ZGC-F01**



|                                                                                                                              |                                                                                                                    |
|------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|
| <b>Kingbright</b>                                                                                                            |                                                                                                                    |
| P/NO: APKA4110xxx                                                                                                            |                                                                                                                    |
| QTY: 2,000 pcs                                                                                                               | Q.C. <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">Q C<br/>xx xx xxxx<br/>PASSED</span> |
| S/N: XXXX                                                                                                                    |                                                                                                                    |
| CODE: XXX                                                                                                                    |                                                                                                                    |
| LOT NO:                                                                                                                      |                                                                                                                    |
| <br>xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx |                                                                                                                    |
| MADE IN CHINA                                                                                                                | RoHS Compliant                                                                                                     |