

PRELIMINARY SPEC

Part Number: APHHS1005VGC/A

Green



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

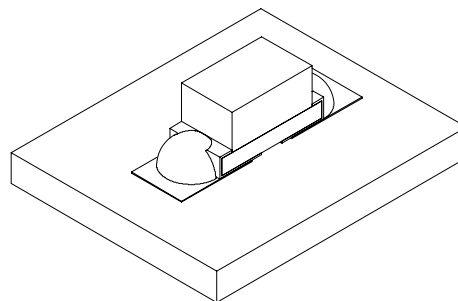
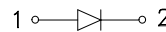
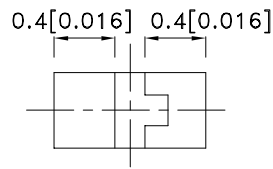
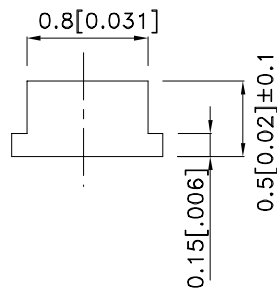
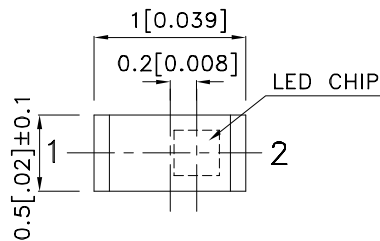
**Features**

- 1.0mmX0.5mm SMT LED, 0.5mm THICKNESS.
- LOW POWER CONSUMPTION.
- WIDE VIEWING ANGLE.
- IDEAL FOR BACKLIGHT AND INDICATOR.
- VARIOUS COLORS AND LENS TYPES AVAILABLE.
- PACKAGE: 2000PCS / REEL .
- MOISTURE SENSIVITY LEVEL : LEVEL 3.
- RoHS COMPLIANT.

**Description**

The Green source color devices are made with InGaN on G-SiC 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 ±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<br>[1] |
|----------------|---------------|-------------|------------------------|------|-------------------------|
|                |               |             | Min.                   | Typ. | 2θ1/2                   |
| APHHS1005VGC/A | Green (InGaN) | WATER CLEAR | 50                     | 180  | 120°                    |

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  | 520  |      | 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  | 35   |      | nm    | I <sub>F</sub> =20mA      |
| C                     | Capacitance              | Green  | 100  |      | pF    | V <sub>F</sub> =0V;f=1MHz |
| V <sub>F</sub> [2]    | Forward Voltage          | Green  | 3.2  | 4    | V     | I <sub>F</sub> =20mA      |
| I <sub>R</sub>        | Reverse Current          | Green  |      | 10   | uA    | V <sub>R</sub> =5V        |

Notes:

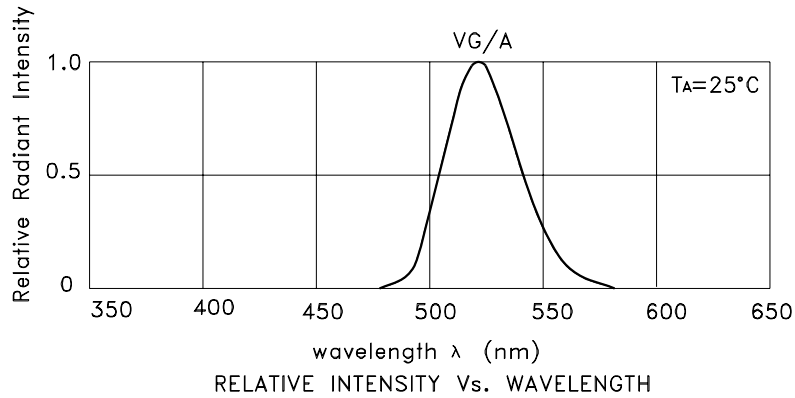
1. Wavelength: +/-1nm.
2. Forward Voltage: +/-0.1V.

## Absolute Maximum Ratings at TA=25°C

| Parameter                | Green          | Units |
|--------------------------|----------------|-------|
| Power dissipation        | 120            | mW    |
| DC Forward Current       | 30             | mA    |
| Peak Forward Current [1] | 100            | mA    |
| Reverse Voltage          | 5              | V     |
| Operating Temperature    | -40°C To +85°C |       |
| Storage Temperature      | -40°C To +85°C |       |

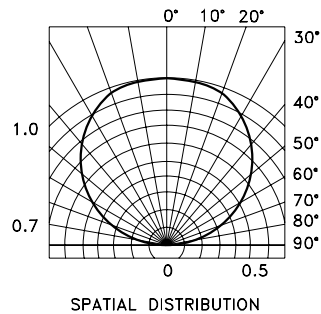
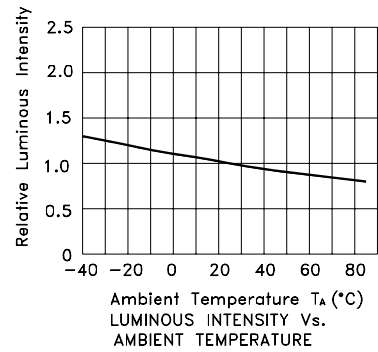
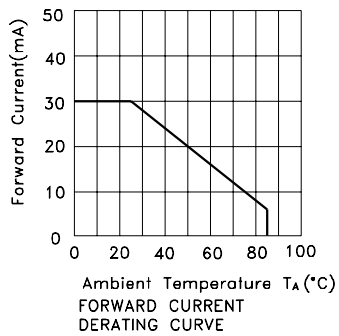
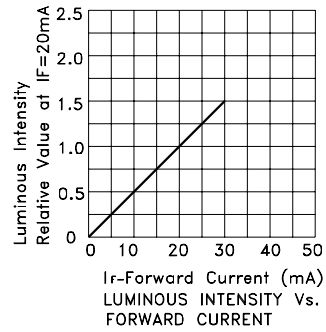
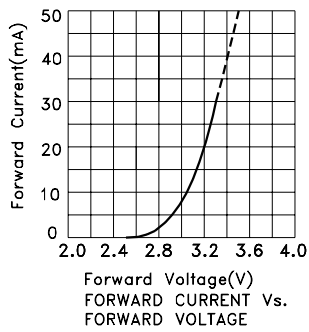
Note:

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



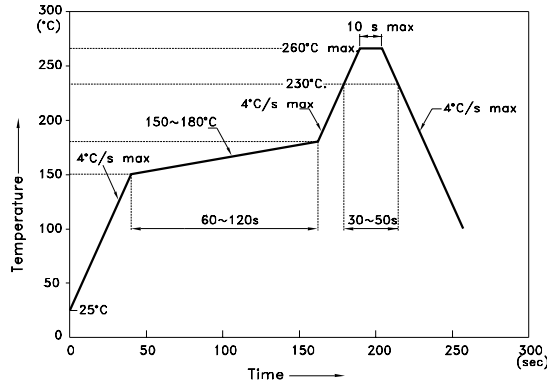
Green

APHHS1005VG/A



## APHHS1005VGC/A

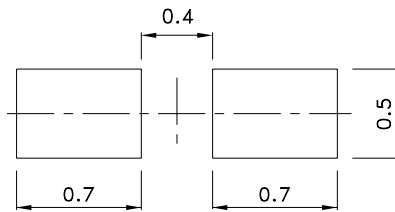
Reflow Soldering Profile For Lead-free SMT Process.



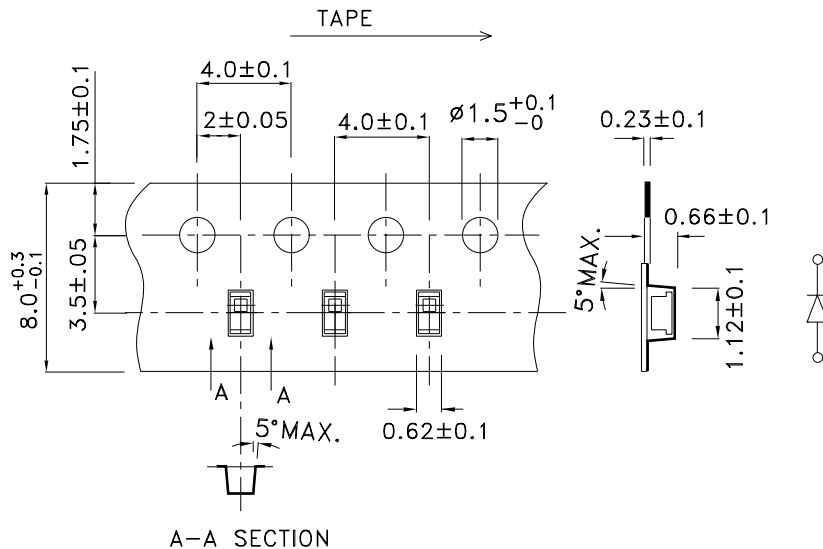
**NOTES:**

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)



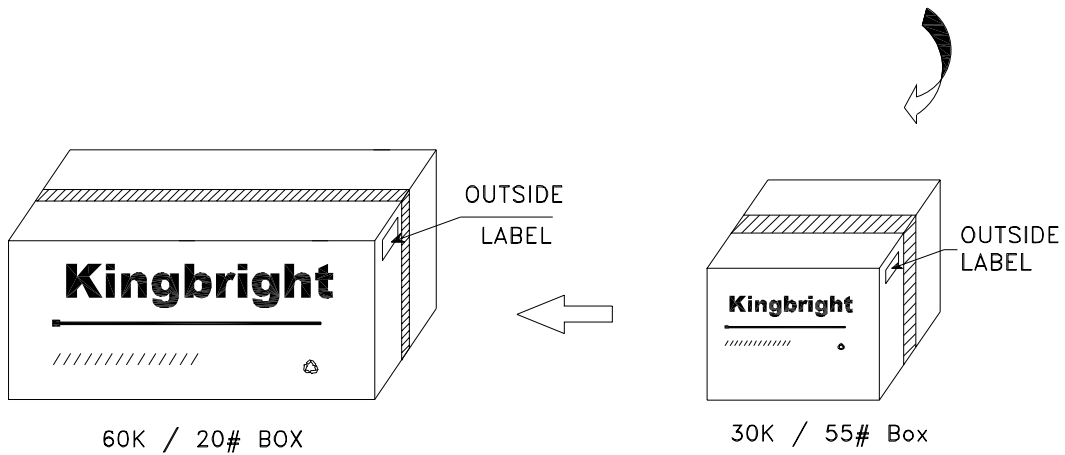
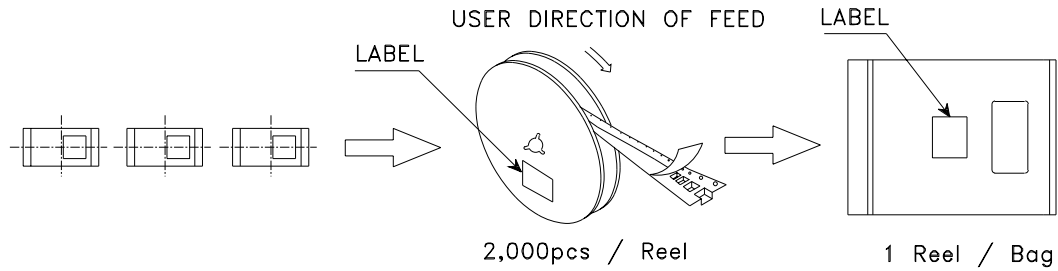
### Tape Specifications (Units : mm)




# Kingbright

## PACKING & LABEL SPECIFICATIONS

## APHHS1005VGC/A



|  |  |
|--|--|
| <h1>Kingbright</h1>  |  |
| P/NO: APHHS1005xxx   |  |
| QTY: 2000 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:  |  |
|  |  |
| MADE IN CHINA  | RoHS Compliant   |