### 1.6x0.8mm SMD CHIP LED LAMP

PRELIMINARY SPEC



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

Part Number: APHK1608VGC/Z

### **Features**

- 1.6mmx0.8mm SMT LED, 0.7mm THICKNESS.
- LOW POWER CONSUMPTION.
- WIDE VIEWING ANGLE.
- IDEAL FOR BACK LIGHT 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 InGaN Light Emitting Diode.

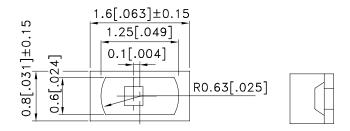
Green

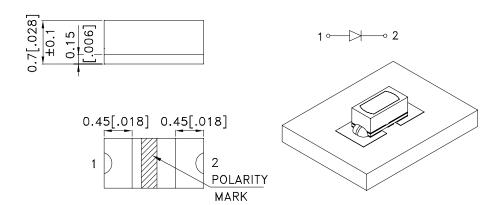
Static electricity and surge damage the LEDS.

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**





- 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.





SPEC NO: DSAH0106 **REV NO: V.2 DATE: MAY/08/2007** PAGE: 1 OF 5 APPROVED: WYNEC CHECKED: Allen Liu DRAWN: Y.L.LI ERP: 1204000902

## **Selection Guide**

Part No.	Dice	Lens Type	lv (mcd) [2] @ 20mA		Viewing Angle [1]
			Min.	Тур.	201/2
APHK1608VGC/Z	Green (InGaN)	WATER CLEAR	480	1000	90°

- 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	Тур.	Max.	Units	Test Conditions
λpeak	Peak Wavelength	Green	525		nm	IF=20mA
λD [1]	Dominant Wavelength	Green	535		nm	IF=20mA
Δλ1/2	Spectral Line Half-width	Green	39		nm	IF=20mA
С	Capacitance	Green	65		pF	VF=0V;f=1MHz
VF [2]	Forward Voltage	Green	3.2	3.7	V	IF=20mA
lr	Reverse Current	Green		10	uA	VR=5V

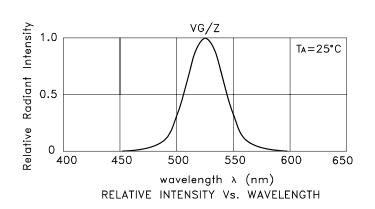
- 1.Wavelength: +/-1nm. 2. Forward Voltage: +/-0.1V.

### Absolute Maximum Ratings at TA=25°C

Abbolato maximum ratingo at 177 20 0					
Parameter	Green	Units			
Power dissipation	111	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				

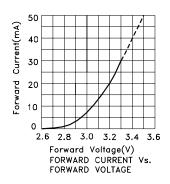
1. 1/10 Duty Cycle, 0.1ms Pulse Width.

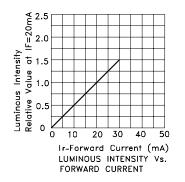
SPEC NO: DSAH0106 REV NO: V.2 DATE: MAY/08/2007 PAGE: 2 OF 5 APPROVED: WYNEC **CHECKED: Allen Liu** DRAWN: Y.L.LI ERP: 1204000902

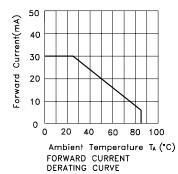


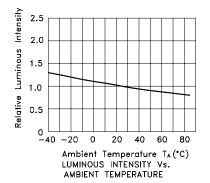
Green

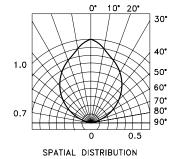
### APHK1608VGC/Z









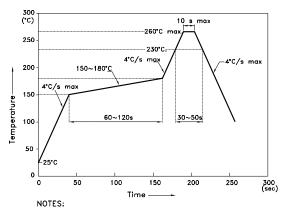


 SPEC NO: DSAH0106
 REV NO: V.2
 DATE: MAY/08/2007
 PAGE: 3 OF 5

 APPROVED: WYNEC
 CHECKED: Allen Liu
 DRAWN: Y.L.LI
 ERP: 1204000902

## APHK1608VGC/Z

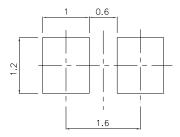
Reflow Soldering Profile For Lead-free SMT Process.



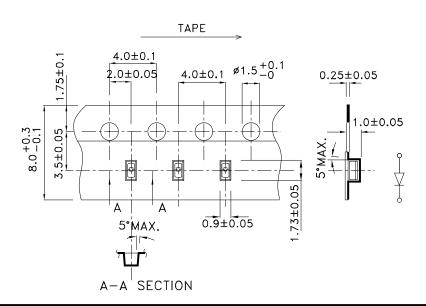
- NOTES:

  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)



SPEC NO: DSAH0106 APPROVED: WYNEC

**REV NO: V.2 CHECKED: Allen Liu**  **DATE: MAY/08/2007** DRAWN: Y.L.LI

PAGE: 4 OF 5 ERP: 1204000902

## **PACKING & LABEL SPECIFICATIONS** APHK1608VGC/Z USER DIRECTION OF FEED LABEL LABEL 2,000pcs / Reel 1 Reel / Bag OUTSIDE LABEL OUTSIDE LABEL Kingbright Kingbright 30K / 55# Box 60K / 20# BOX



SPEC NO: DSAH0106 APPROVED: WYNEC REV NO: V.2 CHECKED: Allen Liu DATE: MAY/08/2007 DRAWN: Y.L.LI PAGE: 5 OF 5 ERP: 1204000902