

1.0X0.5mm SMD CHIP LED LAMP

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

Part Number: APHHS1005ZGCK

Green

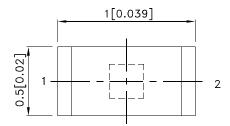
Features

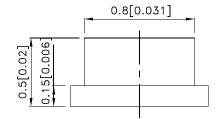
- 1.0mmX0.5mm SMT LED, 0.5mm thickness.
- Low power consumption.
- Wide viewing angle.
- Ideal for backlight and indicator.
- Package: 2000pcs / reel .
- Moisture sensitivity level : level 3.
- RoHS compliant.

Descriptions

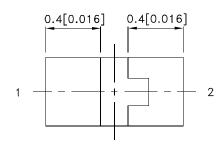
- The Green source color devices are made with InGaN on Sapphire Light Emitting Diode.
- Electrostatic discharge and power surge could damage the LEDs.
- It is recommended to use a wrist band or antielectrostatic glove when handling the LEDs.
- All devices, equipments and machineries must be electrically grounded.

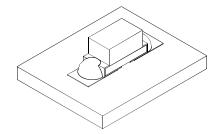
Package Dimensions











- 1. All dimensions are in millimeters (inches).
- 2. Tolerance is $\pm 0.1 (0.004")$ 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.

SPEC NO: DSAM6355 **REV NO: V.3B** DATE: APR/07/2015 PAGE: 1 OF 5 APPROVED: WYNEC CHECKED: Allen Liu DRAWN: Q.M.Chen ERP: 1203013391

Selection Guide

Part No.	Dice	Lens Type	lv (mcd) [2] @ 20mA		Viewing Angle [1]
			Min.	Тур.	201/2
APHHS1005ZGCK	Green (InGaN)	Water Clear	200	400	120°

- 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	35		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

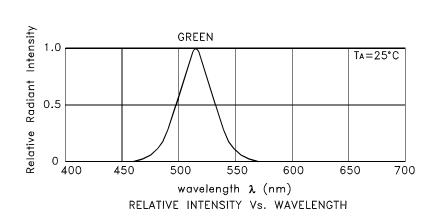
- Notes:
 1. Wavelength: + / -1nm.
 2. Forward Voltage: + / -0.1V.
 3. Wavelength value is traceable to the CIE127-2007 compliant national standards.
- Excess driving current and / or operating temperature higher than recommended conditions may result in severe light degradation or premature failure.

Absolute Maximum Ratings at TA=25°C

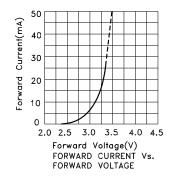
Parameter	Green	Units	
Power dissipation	102.5	mW	
DC Forward Current	25	mA	
Peak Forward Current [1]	150	mA	
Reverse Voltage	5	V	
Operating Temperature	-40°C To +85°C		
Storage Temperature	-40°C To +85°C		

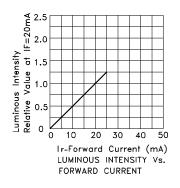
Note: 1. 1 / 10 Duty Cycle, 0.1ms Pulse Width.

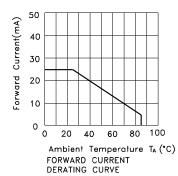
SPEC NO: DSAM6355 **REV NO: V.3B** DATE: APR/07/2015 PAGE: 2 OF 5 APPROVED: WYNEC **CHECKED: Allen Liu** ERP: 1203013391 DRAWN: Q.M.Chen

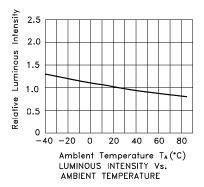


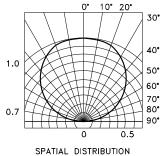
Green APHHS1005ZGCK









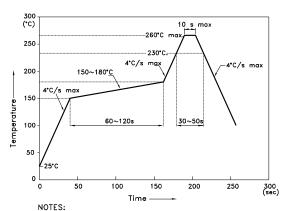


SPEC NO: DSAM6355 REV NO: V.3B DATE: APR/07/2015 PAGE: 3 OF 5
APPROVED: WYNEC CHECKED: Allen Liu DRAWN: Q.M.Chen ERP: 1203013391

APHHS1005ZGCK

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.

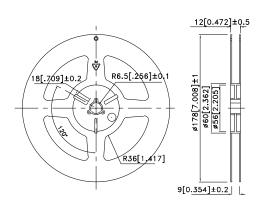
 3.Number of reflow process shall be 2 times or less.

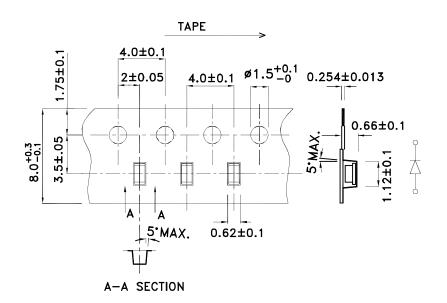
Recommended Soldering Pattern (Units: mm; Tolerance: ± 0.1)

0.4 o 0.7 0.7

Tape Dimensions (Units: mm)

Reel Dimension





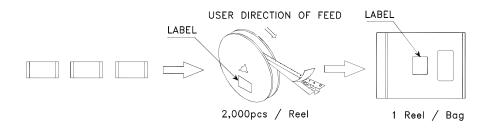
SPEC NO: DSAM6355 **REV NO: V.3B APPROVED: WYNEC CHECKED: Allen Liu**

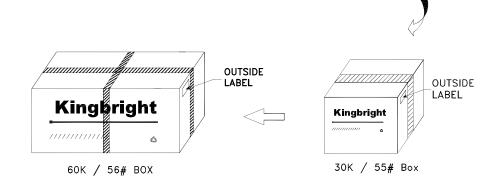
DATE: APR/07/2015 DRAWN: Q.M.Chen

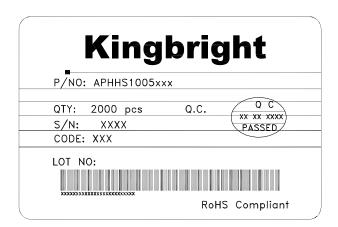
PAGE: 4 OF 5 ERP: 1203013391

PACKING & LABEL SPECIFICATIONS

APHHS1005ZGCK







Terms and conditions for the usage of this document

- 1. The information included in this document reflects representative usage scenarios and is intended for technical reference only.
- 2. The part number, type, and specifications mentioned in this document are subject to future change and improvement without notice. Before production usage customer should refer to the latest datasheet for the updated specifications.
- When using the products referenced in this document, please make sure the product is being operated within the environmental and electrical limits specified in the datasheet. If customer usage exceeds the specified limits, Kingbright will not be responsible for any subsequent issues.
- 4. The information in this document applies to typical usage in consumer electronics applications. If customer's application has special reliability requirements or have life-threatening liabilities, such as automotive or medical usage, please consult with Kingbright representative for further assistance.
- 5. The contents and information of this document may not be reproduced or re-transmitted without permission by Kingbright.
- 6. All design applications should refer to Kingbright application notes available at http://www.KingbrightUSA.com/ApplicationNotes

 SPEC NO: DSAM6355
 REV NO: V.3B
 DATE: APR/07/2015
 PAGE: 5 OF 5

 APPROVED: WYNEC
 CHECKED: Allen Liu
 DRAWN: Q.M.Chen
 ERP: 1203013391