

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

Part Number: KPHM-1608CGCK Green

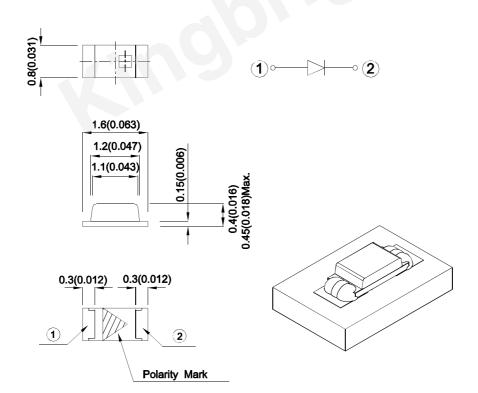
#### **Features**

- 1.6mmx0.8mm SMD LED, 0.45mm max. thickness.
- Low power consumption.
- Wide viewing angle.
- Ideal for backlight and indicator.
- Package : 2000pcs / reel.
- Moisture sensitivity level : level 3.
- RoHS compliant.

### **Description**

The Green source color devices are made with AlGalnP on GaAs substrate Light Emitting Diode.

# **Package Dimensions**



- 1. All dimensions are in millimeters (inches).
- 2. Tolerance is  $\pm 0.1(0.004")$  unless otherwise noted.
- 3.The specifications, characteristics and technical data described in the datasheet are subject to change without prior notice.
  4.The device has a single mounting surface. The device must be mounted according to the specifications.





SPEC NO: DSAC3362 **REV NO: V.14B DATE: MAY/19/2016** PAGE: 1 OF 5 **APPROVED: Wynec CHECKED: Allen Liu** DRAWN: W.Q.Zhong ERP: 1203001436



#### **Selection Guide**

Part No.	Emitting Color (Material)	Lens Type	lv (mcd) [2] @ 20mA		Viewing Angle [1]
		2.	Min.	Тур.	201/2
KPHM-1608CGCK	Green (AlGaInP)	Water Clear	20	50	120°

#### Notes:

- 1.  $\theta$ 1/2 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 CIE127-2007 standards.

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

Symbol	Parameter	Emitting Color	Тур.	Max.	Units	Test Conditions
λpeak	Peak Wavelength	Green	574		nm	IF=20mA
λD [1]	Dominant Wavelength	Green	570		nm	IF=20mA
Δλ1/2	Spectral Line Half-width	Green	20		nm	IF=20mA
С	Capacitance	Green	15		pF	VF=0V;f=1MHz
VF [2]	Forward Voltage	Green	2.1	2.5	V	IF=20mA
lr	Reverse Current	Green		10	uA	V <sub>R</sub> =5V

#### Notes:

- 1. Wavelength: +/-1nm.
- 2. Forward Voltage: +/-0.1V.
- 3. Wavelength value is traceable to CIE127-2007 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

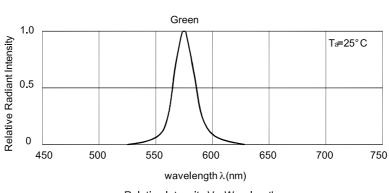
Parameter	Values	Units	
Power dissipation	75	mW	
DC Forward Current	30	mA	
Peak Forward Current [1]	150	mA	
Reverse Voltage	5	V	
Operating Temperature	-40°C To +85°C		
Storage Temperature	-40°C To +85°C		

#### Notes:

- 1. 1/10 Duty Cycle, 0.1ms Pulse Width.
- 2. Relative humidity levels maintained between 40% and 60% in production area are recommended to avoid the build-up of static electricity Ref JEDEC/JESD625-A and JEDEC/J-STD-033.

SPEC NO: DSAC3362 REV NO: V.14B DATE: MAY/19/2016 PAGE: 2 OF 5
APPROVED: Wynec CHECKED: Allen Liu DRAWN: W.Q.Zhong ERP: 1203001436

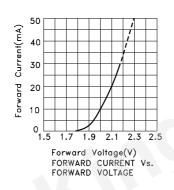
# **Kingbright**

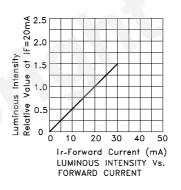


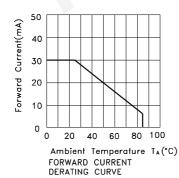
Relative Intensity Vs. Wavelength

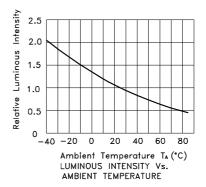
#### Green

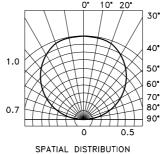
#### KPHM-1608CGCK











 SPEC NO: DSAC3362
 REV NO: V.14B
 DATE: MAY/19/2016
 PAGE: 3 OF 5

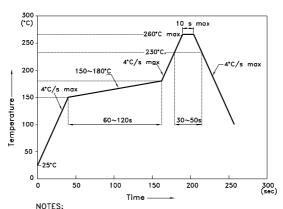
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# Kingbright

#### KPHM-1608CGCK

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.

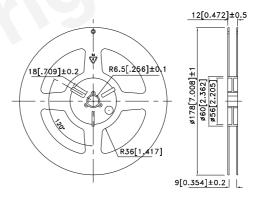
  2.Don't cause stress to the epoxy resin while it is exposed to high temperature.

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

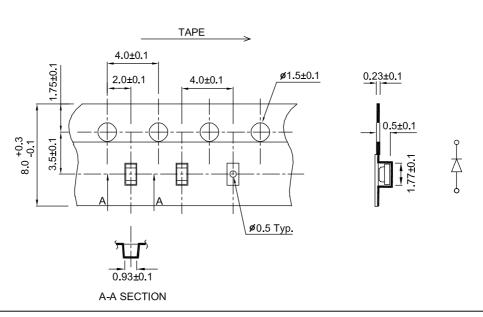
**Recommended Soldering Pattern** (Units: mm; Tolerance: ± 0.1)



### **Reel Dimension**



**Tape Dimensions** (Units: mm)

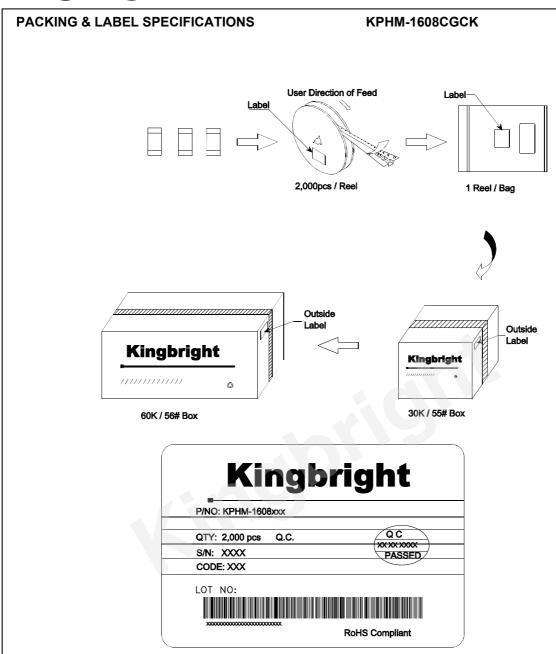


SPEC NO: DSAC3362 **APPROVED: Wynec** 

**REV NO: V.14B CHECKED: Allen Liu** 

**DATE: MAY/19/2016** DRAWN: W.Q.Zhong PAGE: 4 OF 5 ERP: 1203001436





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 SPEC NO: DSAC3362
 REV NO: V.14B
 DATE: MAY/19/2016
 PAGE: 5 OF 5

 APPROVED: Wynec
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