



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

Part Number: KPGA-1602CGC-KA

Green

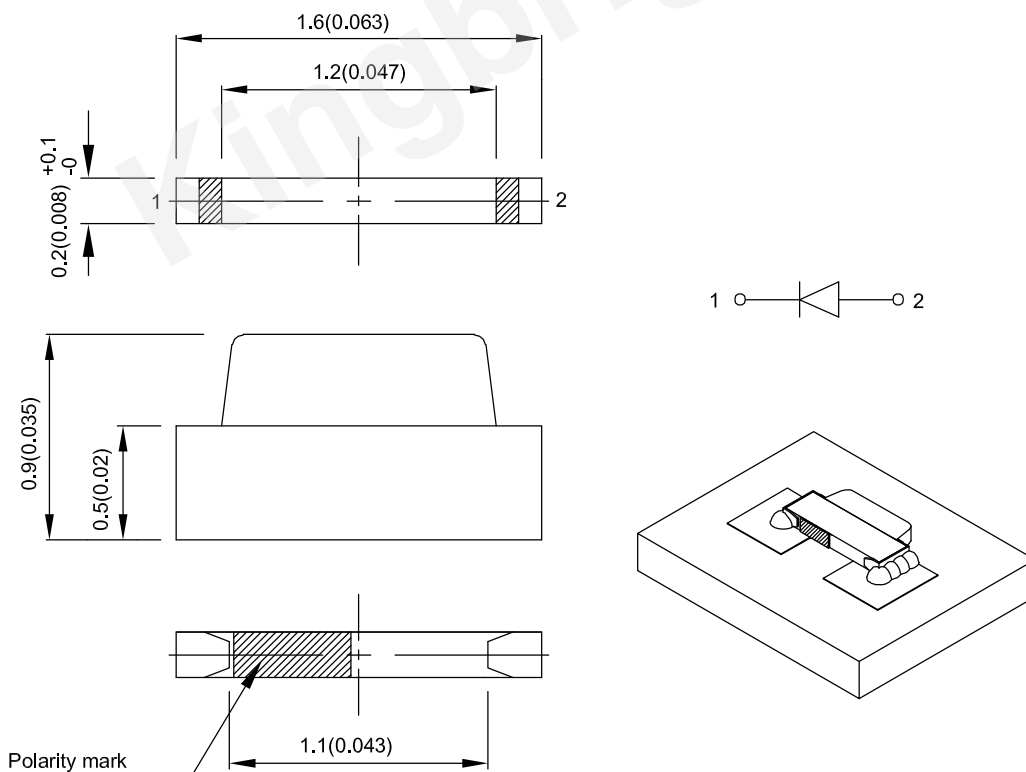
### Features

- 1.6x0.9x0.2mm right angle SMD LED, 0.2mm thickness.
- Low power consumption.
- Wide viewing angle.
- Ideal for backlight and indicator.
- Moisture sensitivity level : level 3.
- Package :2000pcs / reel.
- Tinned pads for improved solderability.
- RoHS compliant.

### Descriptions

- The Green source color devices are made with AlGaInP on GaAs substrate Light Emitting Diode.
- Electrostatic discharge and power surge could 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  $\pm 0.1(0.004)$  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.



## Selection Guide

Part No.	Emitting Color (Material)	Lens Type	Iv (mcd) [2] @ 20mA		Viewing Angle [1]
			Min.	Typ.	2θ1/2
KPGA-1602CGC-KA	Green (AlGaInP)	Water Clear	12	30	150°

Notes:

1. θ1/2 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	Typ.	Max.	Units	Test Conditions
λ <sub>peak</sub>	Peak Wavelength	Green	573		nm	I <sub>F</sub> =20mA
λ <sub>D</sub> [1]	Dominant Wavelength	Green	571		nm	I <sub>F</sub> =20mA
Δλ <sub>1/2</sub>	Spectral Line Half-width	Green	15		nm	I <sub>F</sub> =20mA
C	Capacitance	Green	15		pF	V <sub>F</sub> =0V; f=1MHz
V <sub>F</sub> [2]	Forward Voltage	Green	2.05	2.4	V	I <sub>F</sub> =20mA
I <sub>R</sub>	Reverse Current	Green		10	uA	V <sub>R</sub> =5V

Notes:

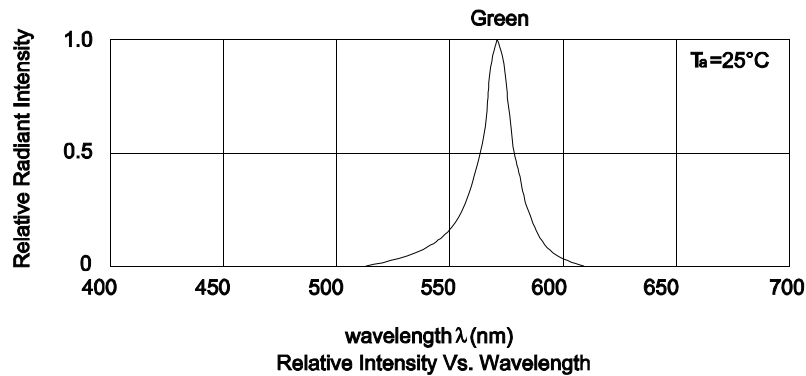
1. Wavelength: +/-1nm.
2. Forward Voltage: +/-0.1V.
3. Wavelength value is traceable to CIE127-2007 standards.
4. Excess driving current and / or operating temperature higher than recommended conditions may result in severe light degradation or premature failure.

## Absolute Maximum Ratings at TA=25°C

Parameter	Values	Units
Power dissipation	48	mW
DC Forward Current	20	mA
Peak Forward Current [1]	100	mA
Reverse Voltage	5	V
Operating Temperature	-40°C To +85°C	
Storage Temperature	-40°C To +100°C	

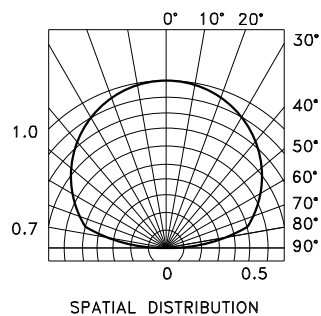
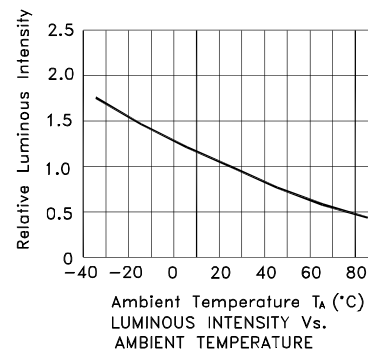
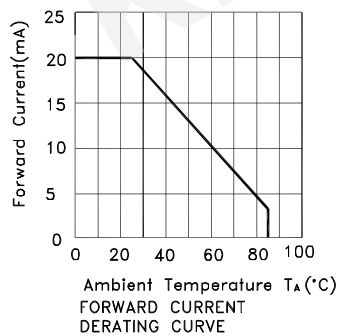
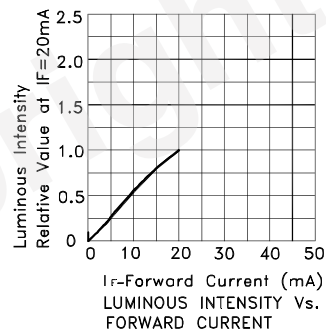
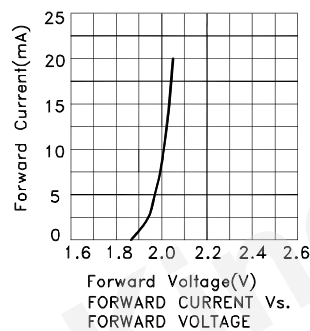
Notes:

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.



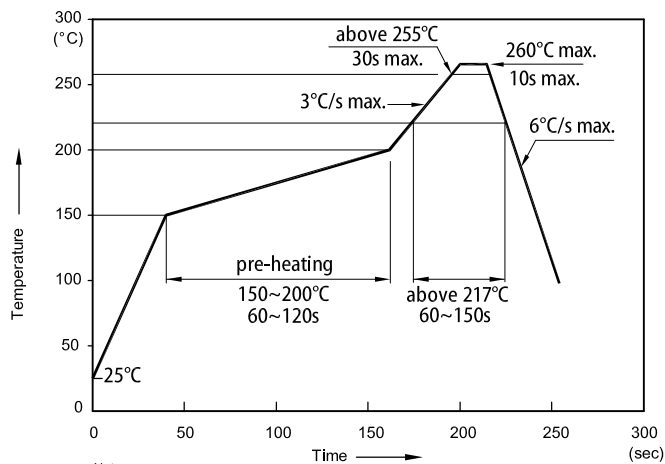
Green

KPGA-1602CGC-KA



## KPGA-1602CGC-KA

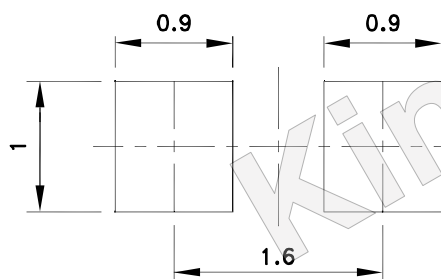
Reflow Soldering Profile for Lead-free SMD Process



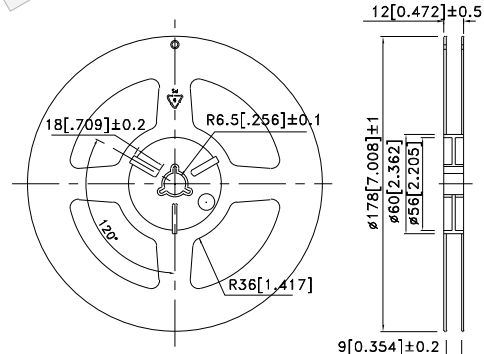
Notes:

1. Don't cause stress to the LEDs while it is exposed to high temperature.
2. The maximum number of reflow soldering passes is 2 times.
3. Reflow soldering is recommended. Other soldering methods are not recommended as they might cause damage to the product.

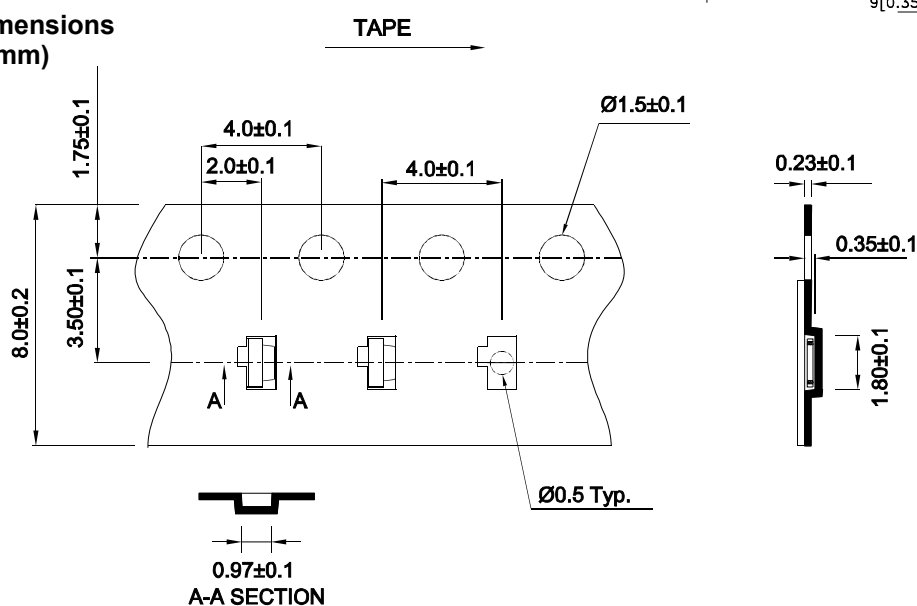
### Recommended Soldering Pattern (Units : mm; Tolerance: $\pm 0.1$ )



### Reel Dimension

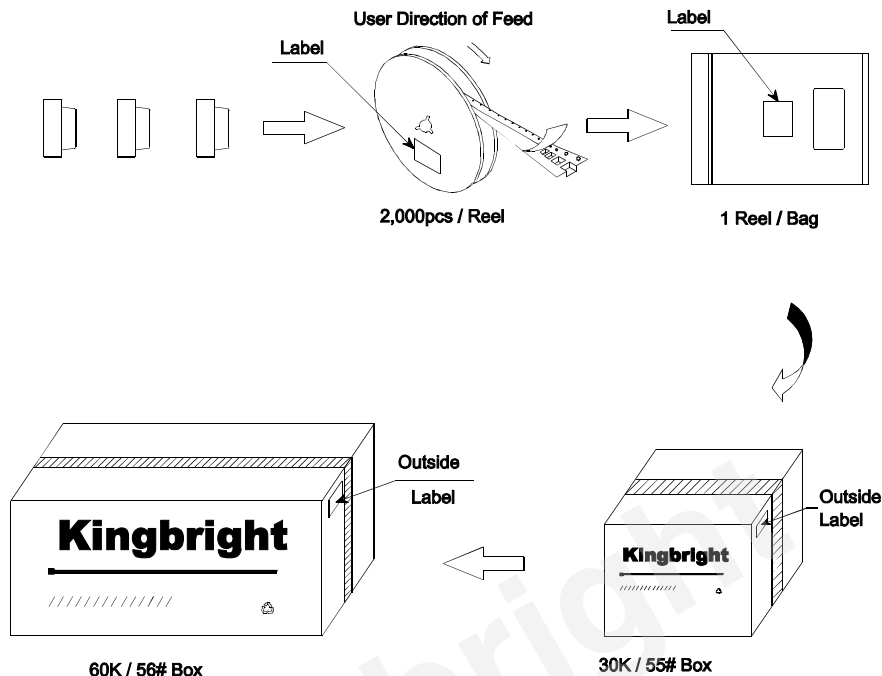




### Tape Dimensions (Units : mm)



## PACKING & LABEL SPECIFICATIONS

KPGA-1602CGC-KA



<b>Kingbright</b>		XXXXXXXX-XXXX	
P/NO: XXXXXXXX			
QTY: XXXXpcs			
S/N: XXXX			
CODE: XXX			
COUNTRY: CN		QC DATE: XXX XX XXXX PASSED	
LOT NO:			
			
XXXXXXXXXX-XXXX			
		1	RoHS Compliant

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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.
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