

## 1.6x0.6mm RIGHT ANGLE SMD CHIP LED LAMP

Part Number: APA1606MGC Mega Green



#### **ATTENTION**

OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
DISCHARGE
SENSITIVE
DEVICES

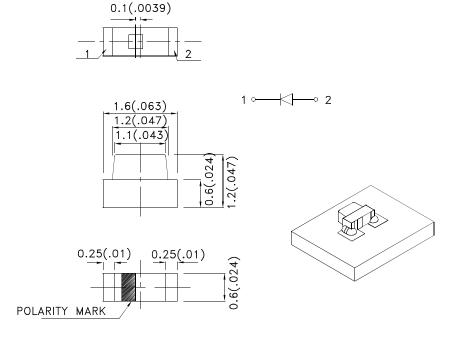
#### **Features**

- 1.6mmx1.2mmx0.6mm right angle SMD LED,0.6mm thickness.
- Low power consumption.
- Wide viewing angle.
- Ideal for backlight and indicator.
- Package :2000pcs / reel.
- Moisture sensitivity level : level 3.
- Tinned pads for improved solderability.
- RoHS compliant.

### **Descriptions**

- The Mega 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 antielectrostatic glove when handling the LEDs.
- All devices, equipments and machineries must be electrically grounded.

## **Package Dimensions**



#### Notes:

- All dimensions are in millimeters (inches).
- 2. Tolerance is ±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.

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 APPROVED: Wynec
 CHECKED: Allen Liu
 DRAWN: W.Q.Zhong
 ERP: 1203000455



#### **Selection Guide**

Part No.	Emitting Color (Material)	Lens Type	lv (mcd) [2] @ 20mA		Viewing Angle [1]
			Min.	Тур.	201/2
APA1606MGC	Mega Green (AlGaInP)	Water Clear	40	60	110°

- 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 CIE127-2007 standards.

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

Symbol	Parameter	Device	Тур.	Max.	Units	Test Conditions
λpeak	Peak Wavelength	Mega Green	574		nm	IF=20mA
λD [1]	Dominant Wavelength	Mega Green	570		nm	IF=20mA
Δλ1/2	Spectral Line Half-width	Mega Green	26		nm	IF=20mA
С	Capacitance	Mega Green	20		pF	VF=0V;f=1MHz
VF [2]	Forward Voltage	Mega Green	2.1	2.5	V	IF=20mA
lR	Reverse Current	Mega Green		10	uA	V <sub>R</sub> =5V

- 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.

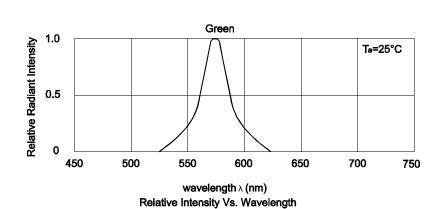
#### Absolute Maximum Ratings at TA=25°C

Parameter	Mega Green	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		

- 1.1/10 Duty Cycle, 0.1ms Pulse Width.
   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.

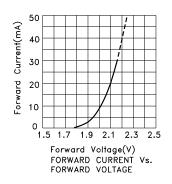
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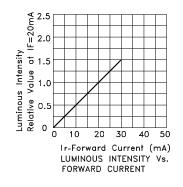
# **Kingbright**

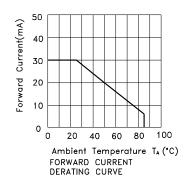


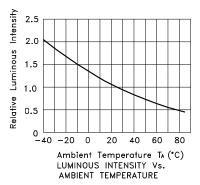
Mega Green

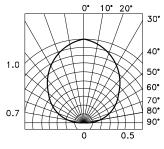
#### APA1606MGC











SPATIAL DISTRIBUTION

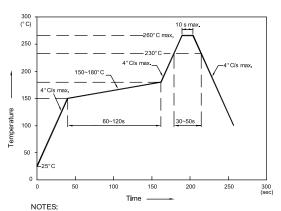
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Reflow soldering is recommended and the soldering profile is shown below. Other soldering methods are not recommended as they might cause damage to the product.

Reflow Soldering Profile For Lead-free SMT Process.



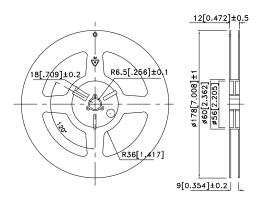
- 1.We recommend the reflow temperature 245°C(+/-5°C).The maximum soldering temperature should be limited to 260°C.
- 2.Don't cause stress to the epoxy resin while it is exposed to high temperature
- to high temperature.
  3.Number of reflow process shall be 2 times or less.

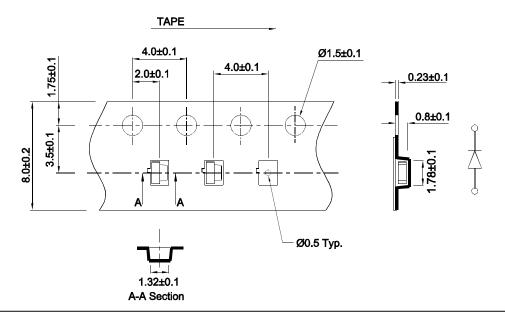
## Recommended Soldering Pattern (Units: mm; Tolerance: ± 0.1)

# 0.9

## Tape Dimensions (Units : mm)

#### **Reel Dimension**



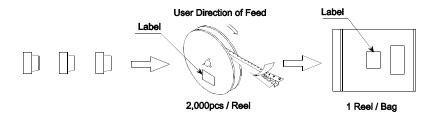


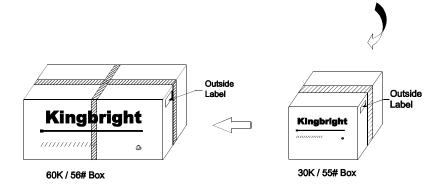
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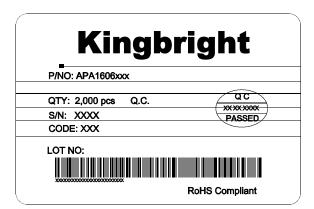
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#### **PACKING & LABEL SPECIFICATIONS**

#### APA1606MGC







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