

#### 4.0x4.0mm RIGHT ANGLE SURFACE MOUNT **LED LAMP**

Part Number: AA4040PGS

Pure Green

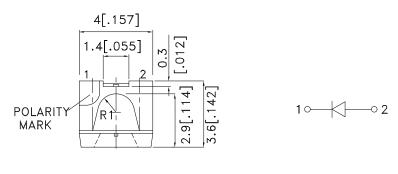
#### **Features**

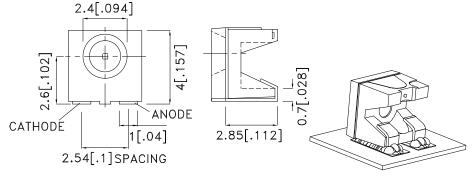
- Single color.
- Suitable for all SMT assembly and solder process.
- Available on tape and reel.
- Ideal for backlighting.
- Package: 500pcs / reel.
- Moisture sensitivity level : level 3.
- RoHS compliant.

#### Description

The Pure Green source color devices are made with Gallium Phosphide Pure Green Light Emitting Diode.

### **Package Dimensions**





- 1. All dimensions are in millimeters (inches).
- 2. Tolerance is  $\pm 0.25(0.01")$  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.

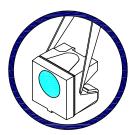
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### **Handling Precautions**

Compare to epoxy encapsulant that is hard and brittle, silicone is softer and flexible. Although its characteristic significantly reduces thermal stress, it is more susceptible to damage by external mechanical force.

As a result, special handling precautions need to be observed during assembly using silicone encapsulated LED products. Failure to comply might lead to damage and premature failure of the LED.

1. Handle the component along the side surfaces by using forceps or appropriate tools.



2. Do not directly touch or handle the silicone lens surface. It may damage the internal circuitry.





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### **Selection Guide**

Part No.	Dice	Lens Type	lv (mcd) [2] @ 20mA		Viewing Angle [1]
		21	Min.	Тур.	201/2
AA4040PGS	Pure Green (GaP)	Water Clear	5	10	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%.

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

Symbol	Parameter	Device	Тур.	Max.	Units	Test Conditions
λpeak	Peak Wavelength	Pure Green	555		nm	IF=20mA
λD [1]	Dominant Wavelength	Pure Green	555		nm	IF=20mA
Δλ1/2	Spectral Line Half-width	Pure Green	30		nm	IF=20mA
С	Capacitance	Pure Green	45		pF	VF=0V;f=1MHz
VF [2]	Forward Voltage	Pure Green	2.25	2.5	V	IF=20mA
lR	Reverse Current	Pure Green		10	uA	V <sub>R</sub> =5V

#### Notes:

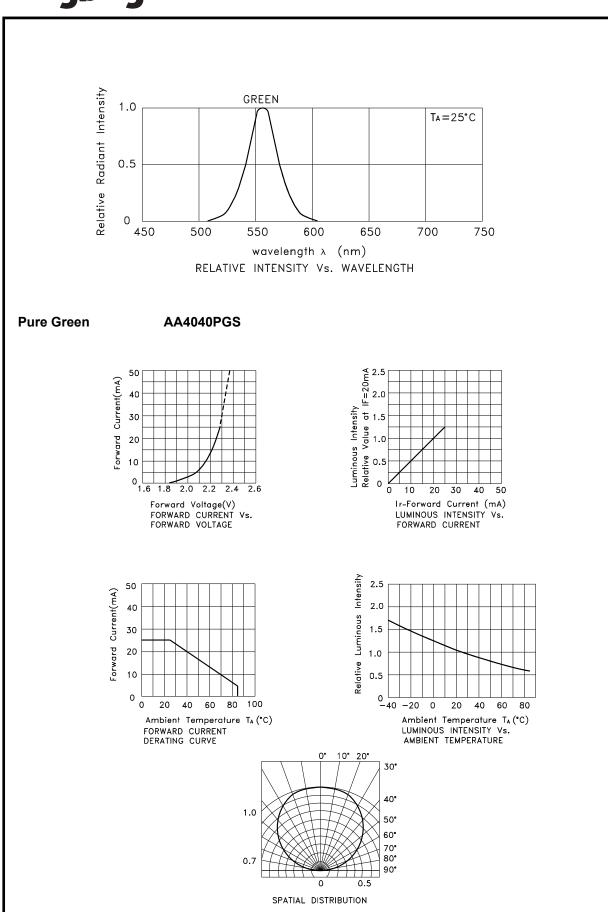
- 1.Wavelength: +/-1nm. 2. Forward Voltage: +/-0.1V.

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

Parameter	Pure Green	Units	
Power dissipation	62.5	mW	
DC Forward Current	25	mA	
Peak Forward Current [1]	135	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.

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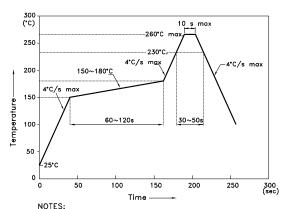
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#### AA4040PGS

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.



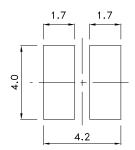
- NOTES:

  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.
  - to high temperature.

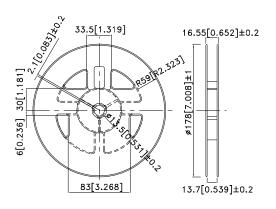
    3.Number of reflow process shall be 2 times or less.

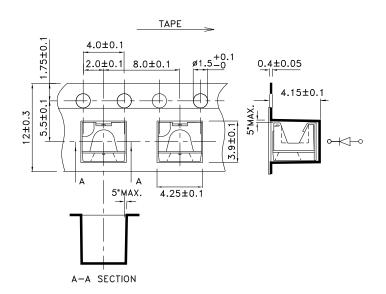
### Recommended Soldering Pattern (Units: mm; Tolerance: ± 0.1)



### Tape Dimensions (Units : mm)

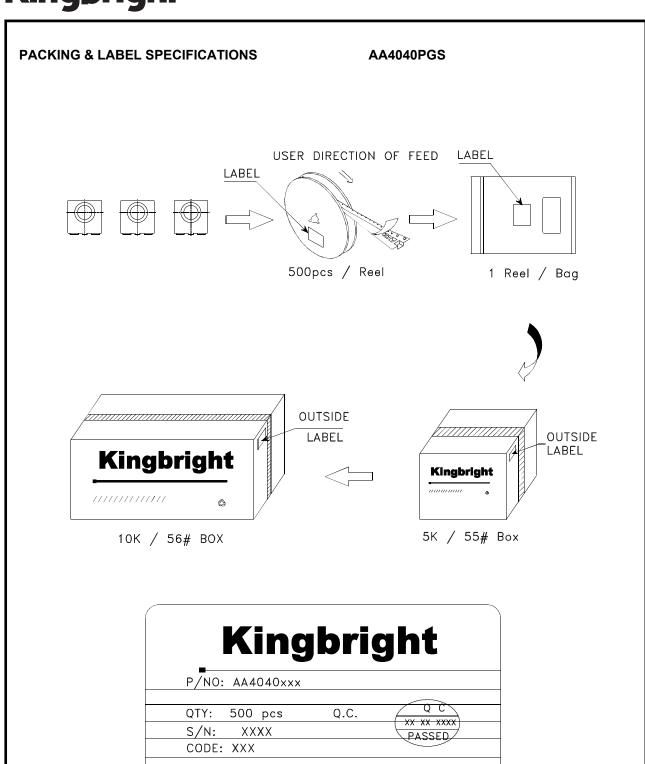
#### **Reel Dimension**





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RoHS Compliant

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