

# 2.1x0.6mm RIGHT ANGLE SURFACE LED **LAMP**

Green

Part Number: KPA-2107LVZGCK



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

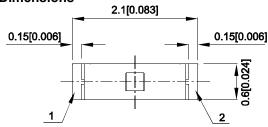
### **Features**

- 2.1mmX1.0mmx0.6mm 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.
- Low current IF=2mA operating.
- RoHS compliant.

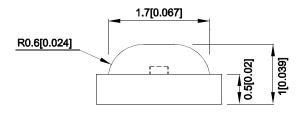
# **Descriptions**

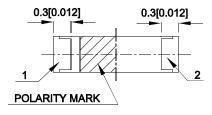
- The Green source color devices are made with InGaN on Sapphire Light Emitting Diode.
- Electrostatic discharge and power surge could damage the LEDs.
- It is recommended to use a wrist band or antielectrostatic glove when handling the LEDs.
- All devices, equipments and machineries must be electrically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

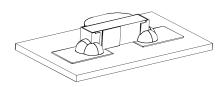
# **Package Dimensions**















# Notes:

- All dimensions are in millimeters (inches).
   Z.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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# **Selection Guide**

| Part No.       | Emitting Color (Material) | Lens Type   | lv (mcd) [2]<br>@ 2mA |      | Viewing<br>Angle [1] |
|----------------|---------------------------|-------------|-----------------------|------|----------------------|
|                |                           | 2.          | Min.                  | Тур. | 201/2                |
| KPA-2107LVZGCK | Green (InGaN)             | Water Clear | 20                    | 40   | 170°                 |

- 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 | Тур. | Max. | Units | Test Conditions |
|--------|--------------------------|----------------|------|------|-------|-----------------|
| λpeak  | Peak Wavelength          | Green          | 515  |      | nm    | IF=2mA          |
| λD [1] | Dominant Wavelength      | Green          | 525  |      | nm    | IF=2mA          |
| Δλ1/2  | Spectral Line Half-width | Green          | 35   |      | nm    | IF=2mA          |
| С      | Capacitance              | Green          | 45   |      | pF    | VF=0V;f=1MHz    |
| VF [2] | Forward Voltage          | Green          | 2.65 | 3    | V     | IF=2mA          |
| lr     | Reverse Current          | Green          |      | 50   | uA    | VR=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.

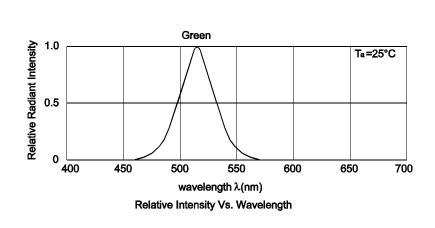
# Absolute Maximum Ratings at TA=25°C

| Parameter                               | Values         | Units |  |
|---|----------------|-------|--|
| Power dissipation                       | 75             | mW    |  |
| DC Forward Current                      | 25             | mA    |  |
| Peak Forward Current [1]                | 150            | mA    |  |
| Electrostatic Discharge Threshold (HBM) | 450            | V     |  |
| Reverse Voltage                         | 5              | V     |  |
| Operating Temperature                   | -40°C To +85°C |       |  |
| torage 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.

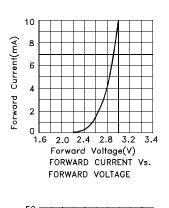
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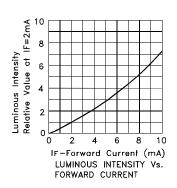
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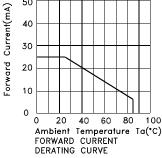


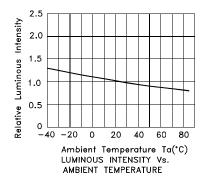
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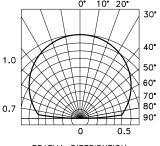
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SPATIAL DISTRIBUTION

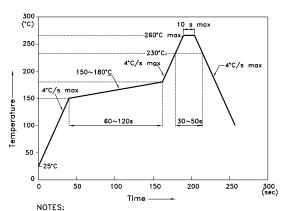
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# **KPA-2107LVZGCK**

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.

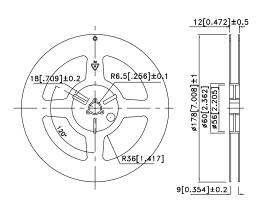
  3.Number of reflow process shall be 2 times or less.

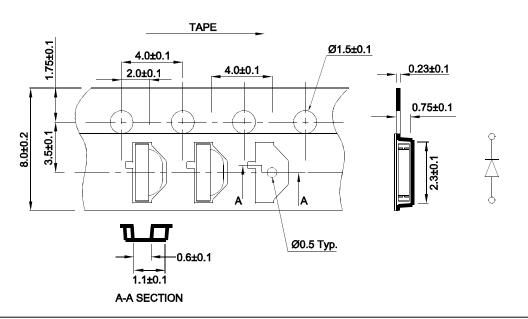
# **Recommended Soldering Pattern** (Units: mm; Tolerance: ± 0.1)

# 2.4

# **Tape Dimensions** (Units: mm)

# **Reel Dimension**





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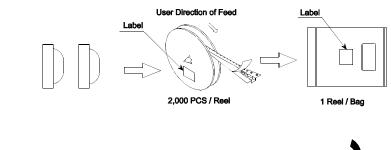
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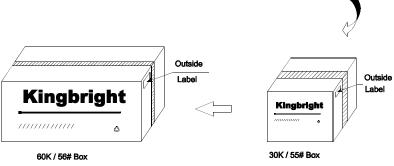
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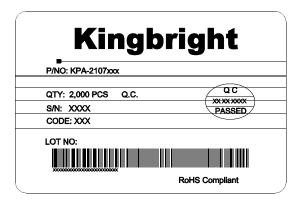
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# **PACKING & LABEL SPECIFICATIONS**

# **KPA-2107LVZGCK**







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