

PRELIMINARY SPEC

Part Number: KPG-0603VGC-TT-5MAV

Green



ATTENTION
OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
DISCHARGE
SENSITIVE
DEVICES

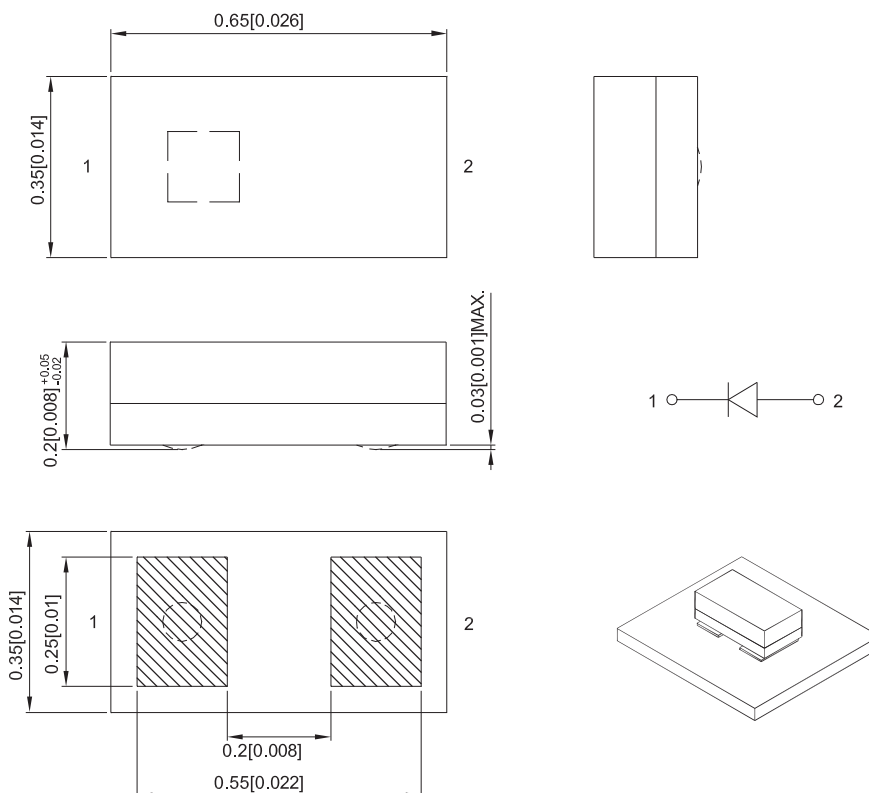
Features

- 0.65mmX0.35mm SMT LED,0.2mm thickness
- Low power consumption.
- Wide viewing angle.
- Compatible with automatic placement equipment.
- Package: 4000pcs / reel.
- Moisture sensitivity level : level 2.
- Low current IF=5mA operating.
- RoHS compliant.

Descriptions

- The Green source color devices are made with InGaN on SiC 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, equipments and machineries must be electrically grounded.

Package Dimensions



Notes:

1. 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.



Selection Guide

| Part No. | Dice | Lens Type | Iv (mcd) [2] @ 5mA | | Viewing Angle [1] |
|---------------------|---------------|-------------|-----------------------|------|----------------------|
| | | | Min. | Typ. | 2θ1/2 |
| KPG-0603VGC-TT-5MAV | Green (InGaN) | Water Clear | 30 | 80 | 145° |

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 the CIE127-2007 compliant national standards.

Electrical / Optical Characteristics at TA=25°C

| Symbol | Parameter | Device | Typ. | Max. | Units | Test Conditions |
|--------|--------------------------|--------|------|------|-------|-----------------|
| λpeak | Peak Wavelength | Green | 518 | | nm | IF=5mA |
| λD [1] | Dominant Wavelength | Green | 527 | | nm | IF=5mA |
| Δλ1/2 | Spectral Line Half-width | Green | 35 | | nm | IF=5mA |
| VF [2] | Forward Voltage | Green | 3.0 | 3.2 | V | IF=5mA |
| IR | Reverse Current | Green | | 50 | uA | VR = 5V |

Notes:

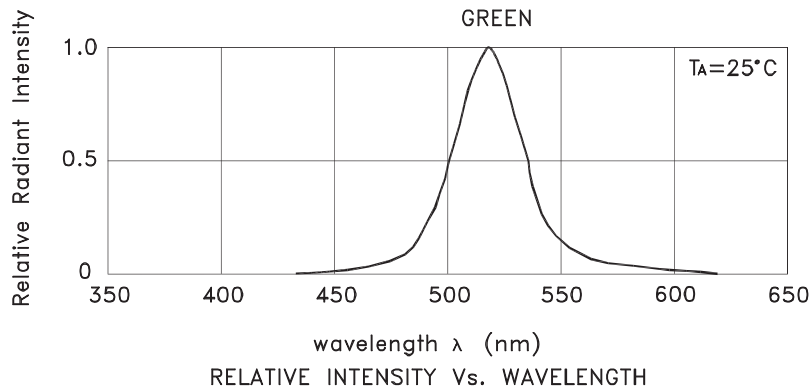
- 1.Wavelength: +/-1nm.
- 2.Forward Voltage: +/-0.1V.
- 3.Wavelength value is traceable to the CIE127-2007 compliant national standards.
- 4.Excess driving current and/or operating temperature higher than recommended conditions may result in severe light degradation or premature failure.

Absolute Maximum Ratings at TA=25°C

| Parameter | Green | Units |
|--------------------------|----------------|-------|
| Power dissipation | 34 | mW |
| DC Forward Current | 10 | mA |
| Peak Forward Current [1] | 50 | mA |
| Reverse Voltage | 5 | V |
| Operating Temperature | -40°C To +85°C | |
| Storage Temperature | -40°C To +85°C | |

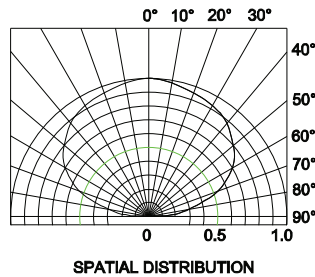
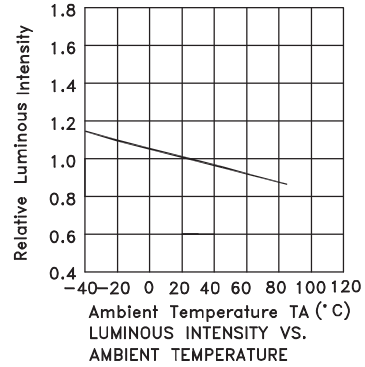
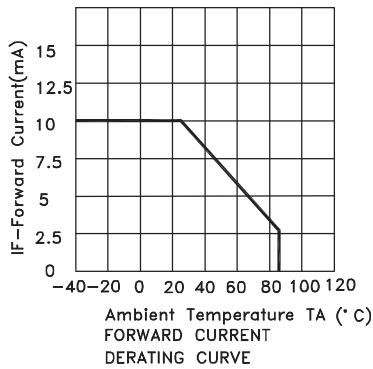
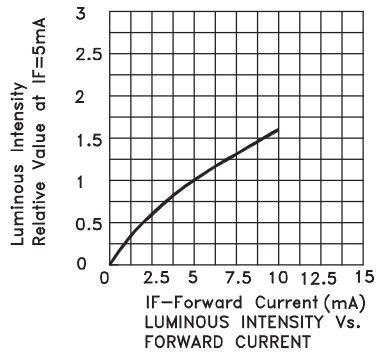
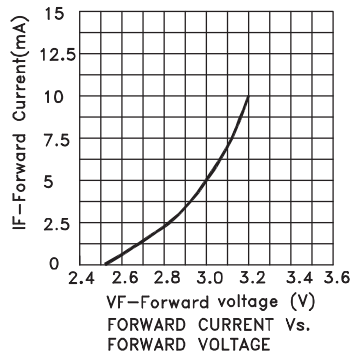
Note:

1. 1/10 Duty Cycle, 0.1ms Pulse Width.



Green

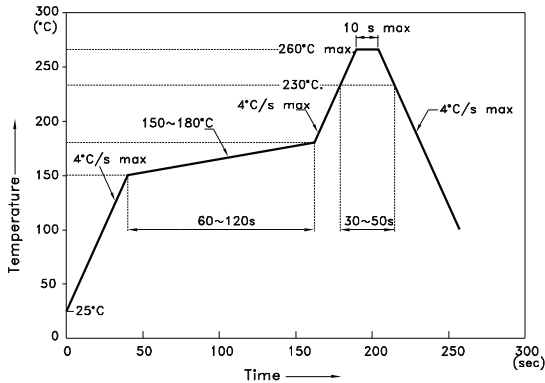
KPG-0603VGC-TT-5MAV



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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.

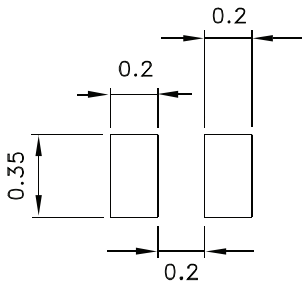
Reflow Soldering Profile For Lead-free SMT Process.



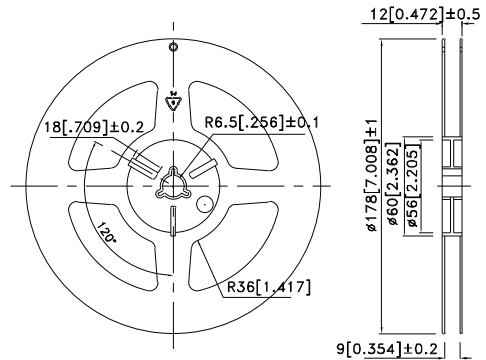
NOTES:

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.

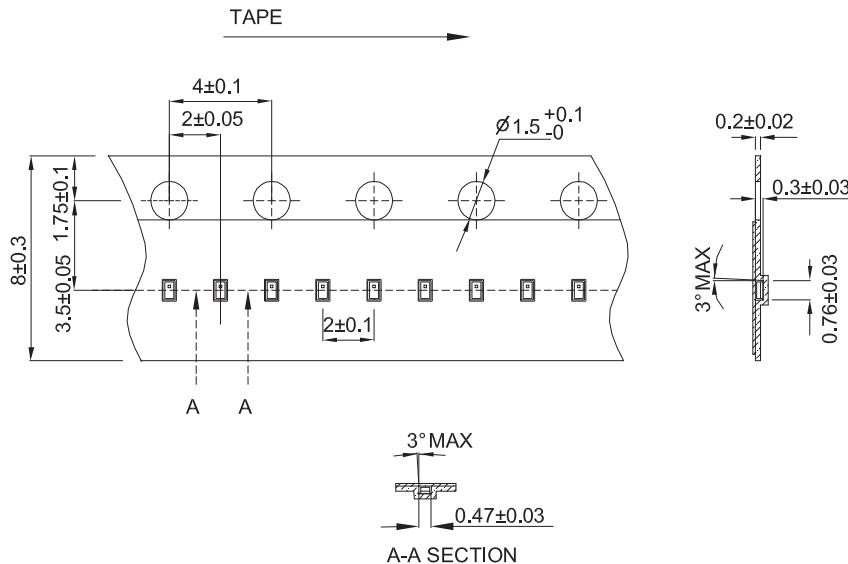
Recommended Soldering Pattern (Units : mm; Tolerance: ± 0.1)



Reel Dimension

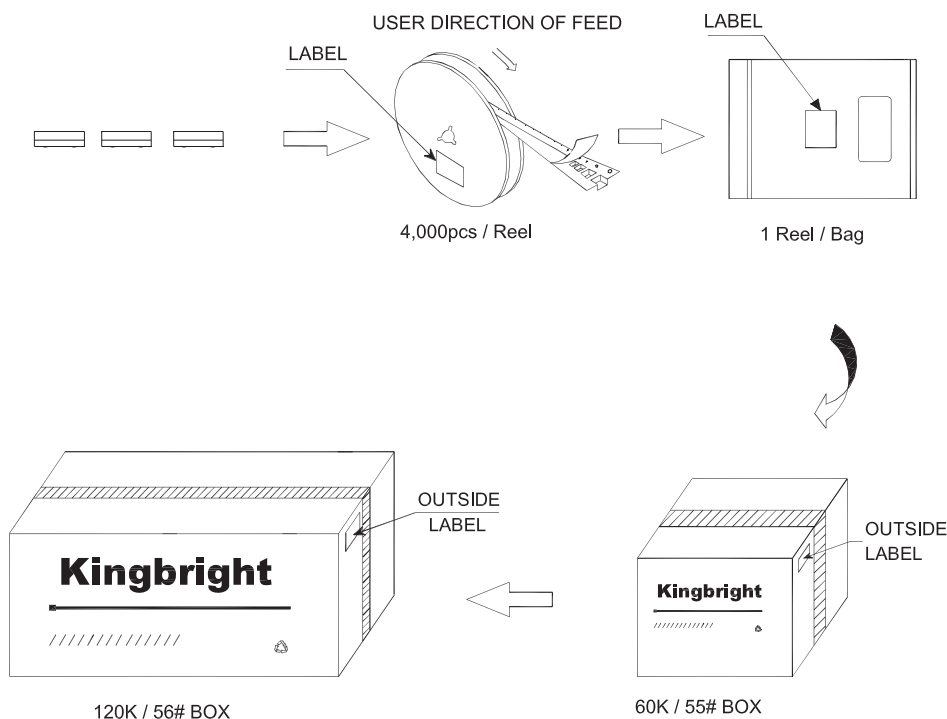



Tape Dimensions (Units : mm)



PACKING & LABEL SPECIFICATIONS

KPG-0603VGC-TT-5MAV



| | | | | | |
|--|------|---|-----|------------|--------|
| <h1>Kingbright</h1> | | | | | |
| P/NO: KPG-0603xxx | | | | | |
| QTY: 4000 pcs | Q.C. | <table border="1"> <tr><td>Q C</td></tr> <tr><td>XX XX XXXX</td></tr> <tr><td>PASSED</td></tr> </table> | Q C | XX XX XXXX | PASSED |
| Q C | | | | | |
| XX XX XXXX | | | | | |
| PASSED | | | | | |
| S/N: XXXX | | | | | |
| CODE: XXX | | | | | |
| LOT NO: | | | | | |
|  XXXXXXXXXXXXXXXXXXXXXXXXXXXX | | | | | |
| RoHS Compliant | | | | | |

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