

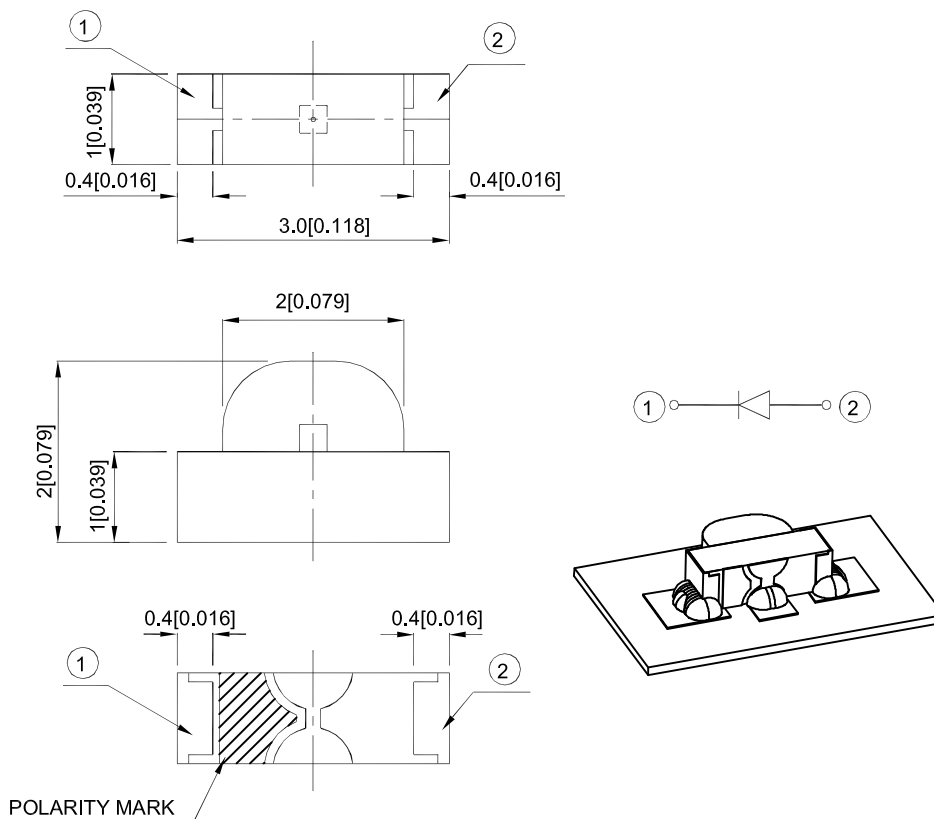
Features

- 3.0x2.0x1.0mm right angle SMD LED, 1.0mm thickness.
- Low power consumption.
- Wide viewing angle.
- Ideal for back light and indicator.
- Package : 2000pcs / reel.
- Moisture sensitivity level : level 3.
- Tinned pads for improved solderability.
- RoHS compliant.

Description

The Mega Green source color devices are made with Al-GaNp on GaAs substrate Light Emitting Diode.

Package Dimensions



Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is $\pm 0.15(0.006")$ 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. | Max. | θ1/2 |
| APA3010MGC-GX | Mega Green (AlGaInP) | Water Clear | 40 | 60 | 80 | 120° |

Notes:

- θ1/2 is the angle from optical centerline where the luminous intensity is 1/2 of the optical peak value.
- Luminous intensity / luminous Flux: +/-15%.
- 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_{peak} | Peak Wavelength | Mega Green | 574 | | nm | I _F =20mA |
| λ_D [1] | Dominant Wavelength | Mega Green | 570 | 571 | nm | I _F =20mA |
| $\Delta\lambda_{1/2}$ | Spectral Line Half-width | Mega Green | 26 | | nm | I _F =20mA |
| C | Capacitance | Mega Green | 20 | | pF | V _F =0V;f=1MHz |
| V _F [2] | Forward Voltage | Mega Green | 2.1 | 2.5 | V | I _F =20mA |
| I _R | Reverse Current | Mega Green | | 10 | uA | V _R =5V |

Notes:

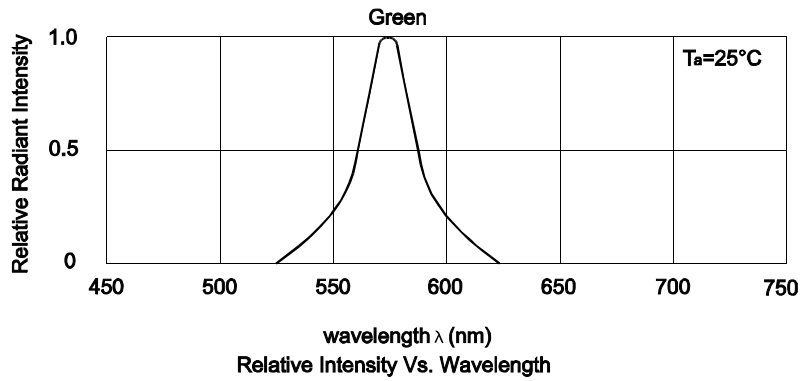
- Wavelength: +/-1nm.
- Forward Voltage: +/-0.1V.
- Wavelength value is traceable to CIE127-2007 standards.
- Excess driving current and / or operating temperature higher than recommended conditions may result in severe light degradation or premature failure.

Absolute Maximum Ratings at TA=25°C

| Parameter | Values | Units |
|--------------------------|----------------|-------|
| Power dissipation | 75 | mW |
| DC Forward Current | 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 | |

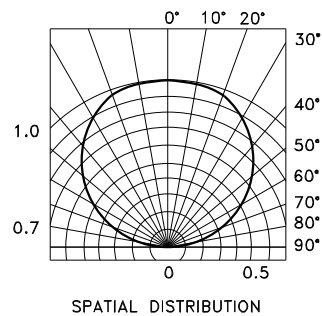
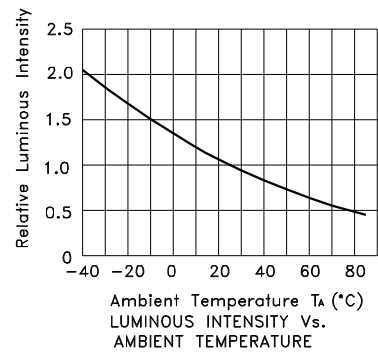
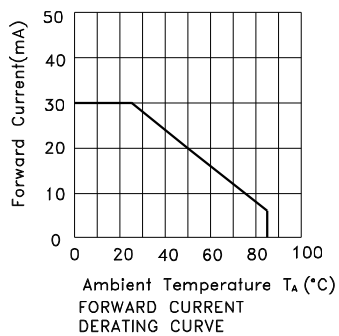
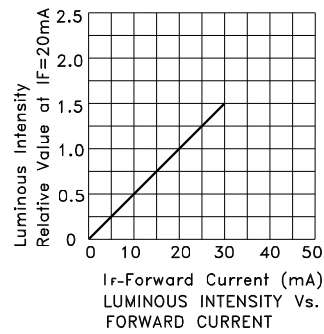
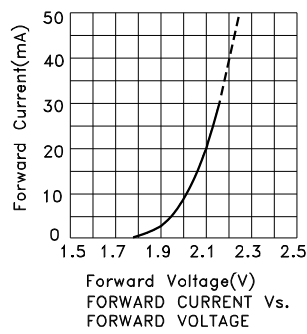
Notes:

- 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.



Mega Green

APA3010MGC-GX



APA3010MGC-GX

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.

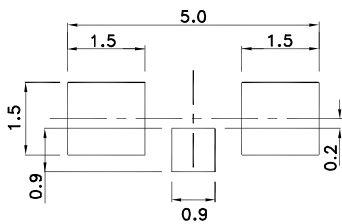
Reflow Soldering Profile For Lead-free SMT Process.



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.

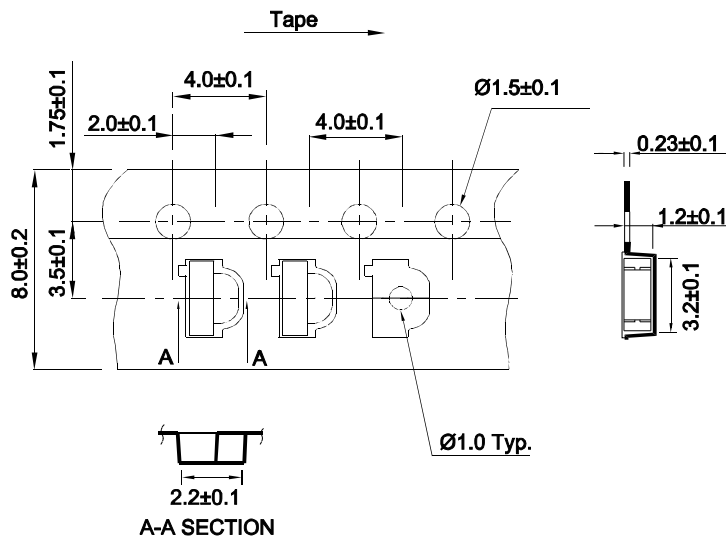
Recommended Soldering Pattern (Units : mm; Tolerance: ± 0.1)



Reel Dimension

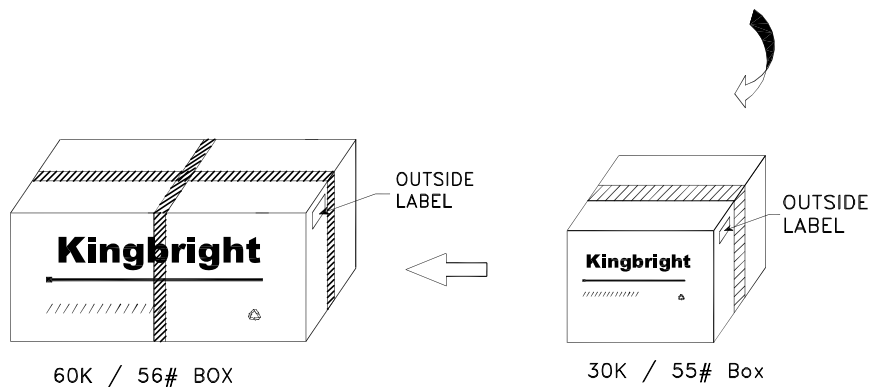
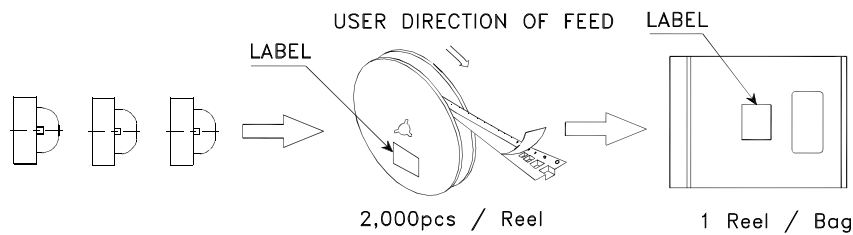



Tape Dimensions (Units : mm)



PACKING & LABEL SPECIFICATIONS

APA3010MGC-GX



| | |
|---|--|
| Kingbright | |
| P/NO: APA3010xxx | |
| QTY: 2,000 pcs | Q.C. Q C xx-xx-xxxx PASSED |
| S/N: XXXX | |
| CODE: XXX | |
| LOT NO: | |
|  <small>XXXXXXXXXXXXXXXXXXXXXXXXXXXX</small> | |
| RoHS Compliant | |

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