# Excellent Integrated System Limited

Stocking Distributor

Click to view price, real time Inventory, Delivery & Lifecycle Information:

Kingbright
APTD3216MGC

For any questions, you can email us directly:
sales@integrated-circuit.com

Kingbright

**3.2x1.6mm SMD CHIP LED LAMP**

Part Number: APTD3216MGC Mega Green

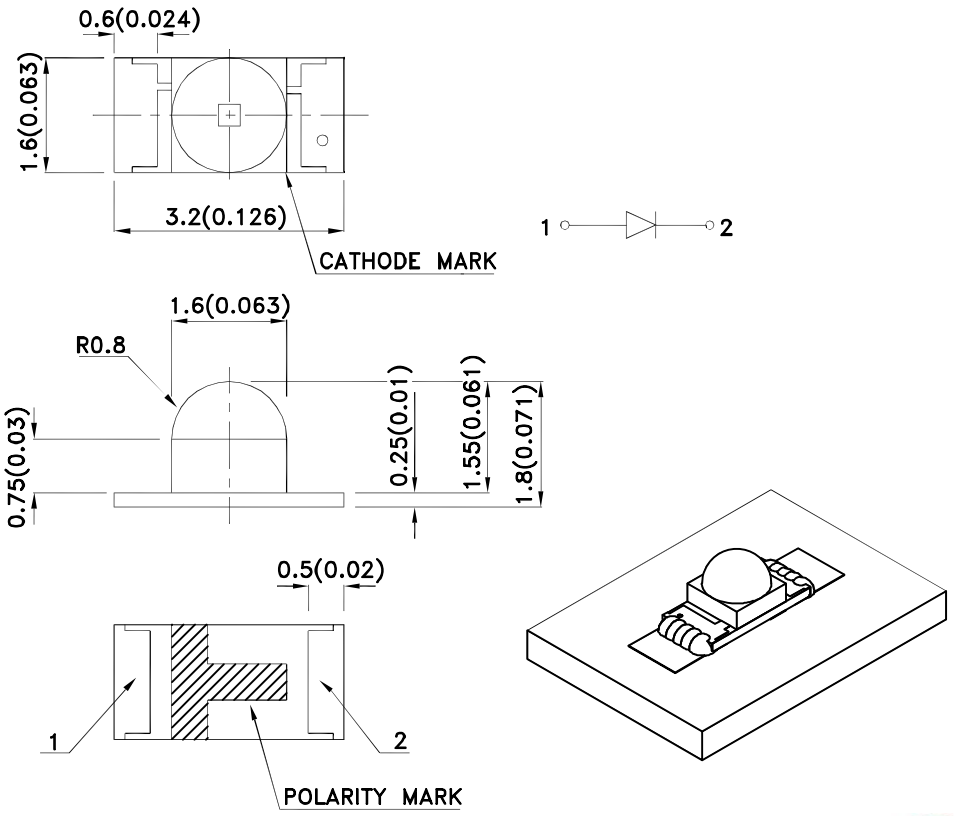
## Features

- 3.2mmX1.6mm SMT LED, 1.8mm thickness.
- Low power consumption.
- Ideal for backlight and indicator.
- Various colors and lens types available.
- Package: 2000pcs / reel .
- Moisture sensitivity level : level 3.
- RoHS compliant.

## Description

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

## Package Dimensions




Notes:
1. All dimensions are in millimeters (inches).
2. Tolerance is ±0.2(0.008") 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.

Kingbright

## Selection Guide

| Part No. | Dice | Lens Type | Iv (mcd) [2] @ 20mA | | Viewing Angle [1] |
|---|---|---|---|---|---|
| | | | Min. | Typ. | 2θ1/2 |
| APTD3216MGC | Mega Green (AlGaInP) | Water Clear | 200 | 450 | 35° |

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 | Mega Green | 574 | | nm | $I_F$=20mA |
| λD [1] | Dominant Wavelength | Mega Green | 570 | | nm | $I_F$=20mA |
| Δλ1/2 | 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 |

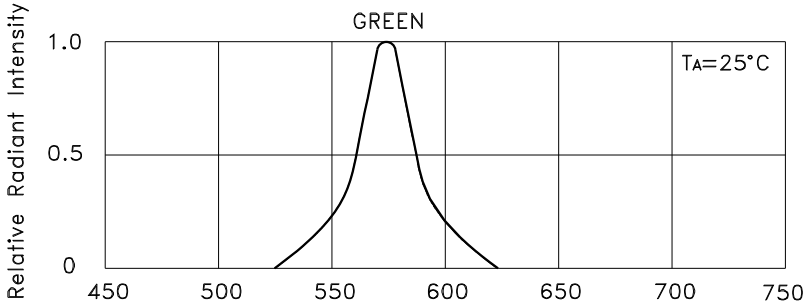
Notes:
1.Wavelength: +/-1nm.
2.Forward Voltage: +/-0.1V.
3.Wavelength value is traceable to the CIE127-2007 compliant national standards.

## 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 | |

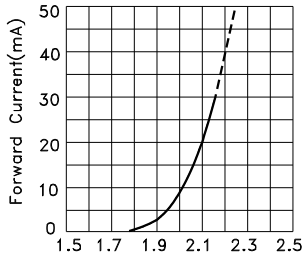
Note:
1. 1/10 Duty Cycle, 0.1ms Pulse Width.

Kingbright

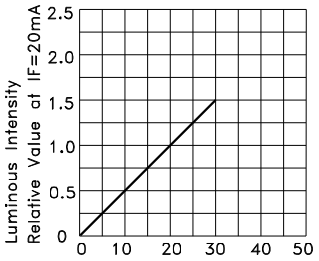


RELATIVE INTENSITY Vs. WAVELENGTH

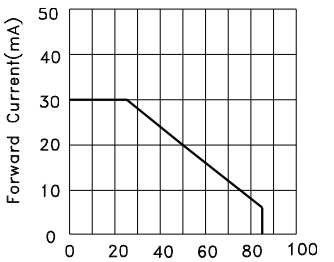
**Mega Green** **APTD3216MGC**



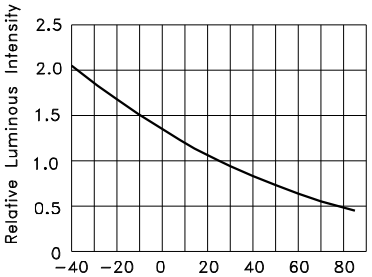
FORWARD CURRENT Vs. FORWARD VOLTAGE



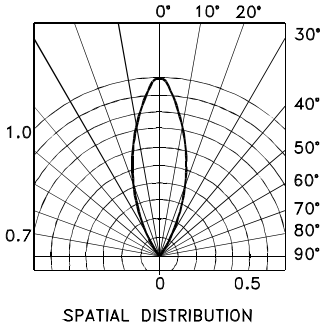
LUMINOUS INTENSITY Vs. FORWARD CURRENT



FORWARD CURRENT DERATING CURVE



LUMINOUS INTENSITY Vs. AMBIENT TEMPERATURE



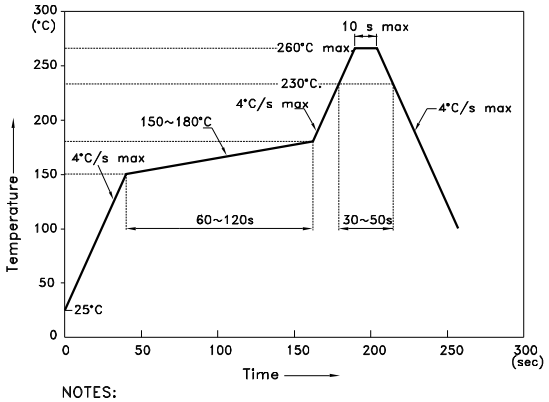
SPATIAL DISTRIBUTION

# Kingbright

## APTD3216MGC

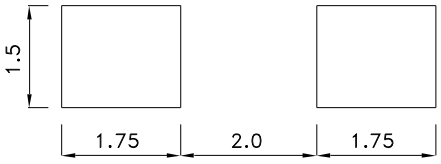
**Reflow soldering is recommended and the soldering profile is shown below.**
**Other soldering methods are not recommended as they might cause damage to the product.**

Reflow Soldering Profile For Lead-free SMT Process.

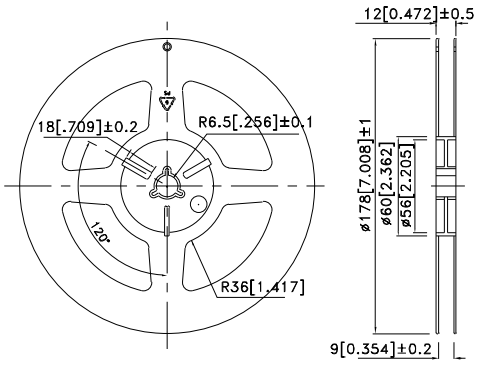



NOTES:
1. We recommend the reflow temperature 245°C(+/-5°C).The maximum soldering temperature should be limited to 260°C.
2. Don't cause stress to the epoxy resin while it is exposed to high temperature.
3. Number of reflow process shall be 2 times or less.

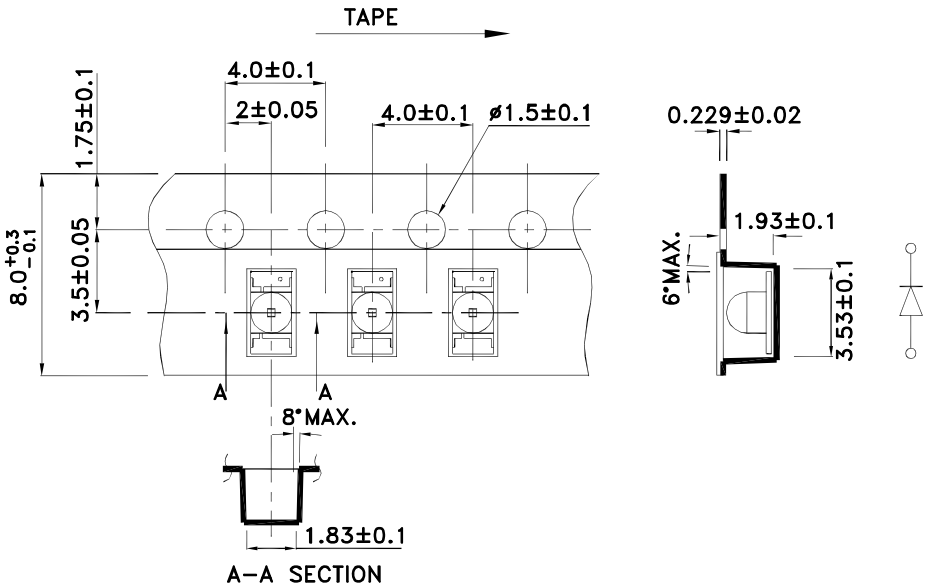
### Recommended Soldering Pattern
### (Units : mm; Tolerance: ± 0.1)




### Reel Dimension

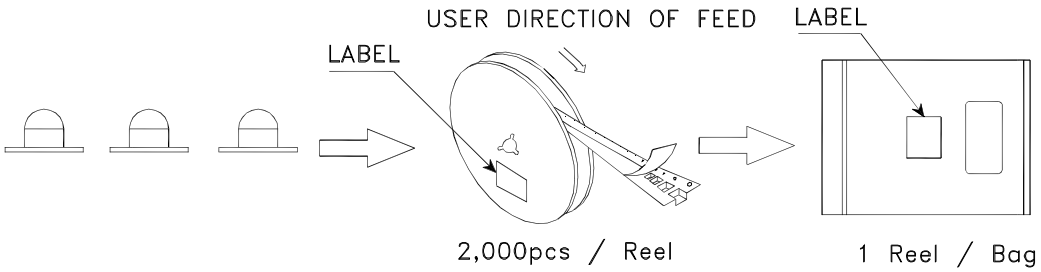


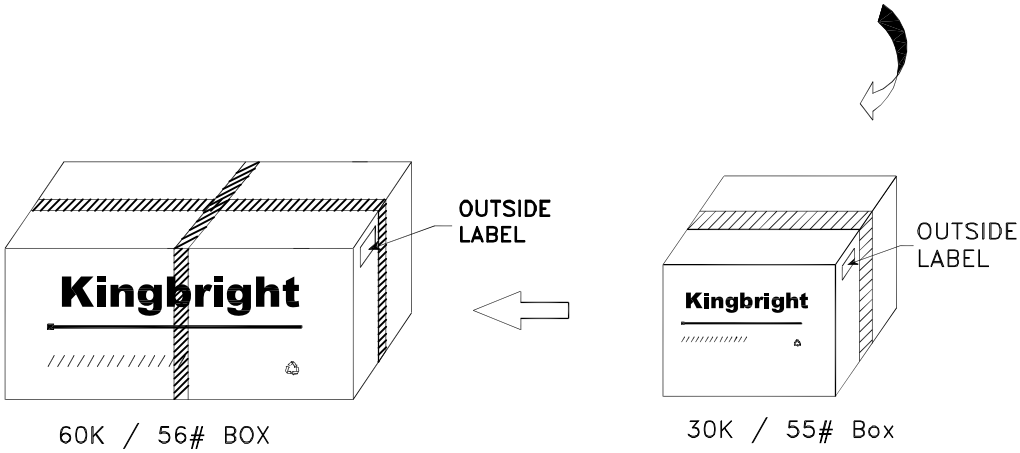

### Tape Dimensions
### (Units : mm)

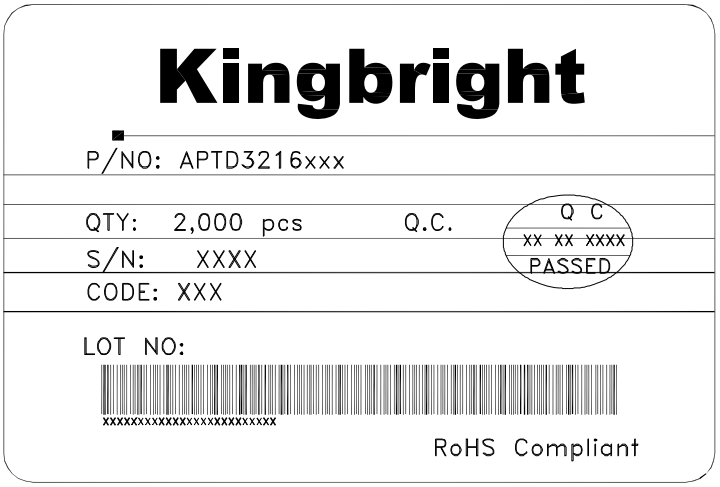


Kingbright

**PACKING & LABEL SPECIFICATIONS** **APTD3216MGC**




All design applications should refer to Kingbright application notes available at
http://www.KingbrightUSA.com/ApplicationNotes