

## 3.2x1.6mm SMD CHIP LED LAMP

Part Number: APTD3216YC Yellow

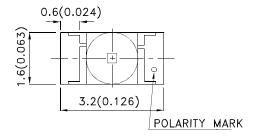
## **Features**

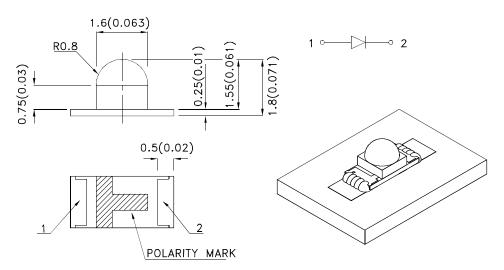
- 3.2mmX1.6mm SMT LED, 1.8mm thickness.
- Low power consumption.
- Ideal for backlight and indicator.
- Various colors and lens types available.
- Package: 2000pcs / reel .
- Moisture sensitivity level : level 3.
- RoHS compliant.

# **Description**

The Yellow source color devices are made with Gallium Arsenide Phosphide on Gallium Phosphide Yellow Light Emitting Diode.

# **Package Dimensions**





- 1. All dimensions are in millimeters (inches).
- 2. Tolerance is  $\pm 0.2(0.008")$  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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# **Selection Guide**

| Part No.   | Dice               | lv (mcd) [2] Dice Lens Type @ 20mA |      | ,    | Viewing<br>Angle [1] |
|------------|--------------------|------------------------------------|------|------|----------------------|
|            |                    |                                    | Min. | Тур. | 201/2                |
| APTD3216YC | Yellow (GaAsP/GaP) | Water Clear                        | 20   | 40   | 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 | Тур. | Max. | Units | Test Conditions    |
|--------|--------------------------|--------|------|------|-------|--------------------|
| λpeak  | Peak Wavelength          | Yellow | 590  |      | nm    | IF=20mA            |
| λD [1] | Dominant Wavelength      | Yellow | 588  |      | nm    | IF=20mA            |
| Δλ1/2  | Spectral Line Half-width | Yellow | 35   |      | nm    | IF=20mA            |
| С      | Capacitance              | Yellow | 20   |      | pF    | VF=0V;f=1MHz       |
| VF [2] | Forward Voltage          | Yellow | 2.1  | 2.5  | V     | IF=20mA            |
| lR     | Reverse Current          | Yellow |      | 10   | uA    | V <sub>R</sub> =5V |

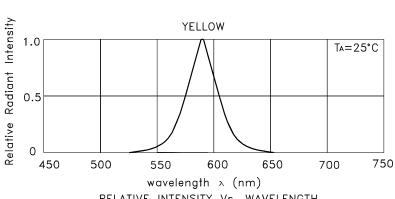
- Notes: 1.Wavelength: +/-1nm. 2. Forward Voltage: +/-0.1V.
- 3. Wavelength value is traceable to the CIE127-2007 compliant national standards.

## Absolute Maximum Ratings at TA=25°C

| - Control Maximum Ratings at 174 20 0 |                |       |  |  |
|---------------------------------------|----------------|-------|--|--|
| Parameter                             | Yellow         | Units |  |  |
| Power dissipation                     | 75             | mW    |  |  |
| DC Forward Current                    | 30             | mA    |  |  |
| Peak Forward Current [1]              | 140            | mA    |  |  |
| Reverse Voltage                       | 5              | V     |  |  |
| Operating Temperature                 | -40°C To +85°C |       |  |  |
| Storage Temperature                   | -40°C To +85°C |       |  |  |
| •                                     |                |       |  |  |

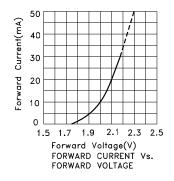
1. 1/10 Duty Cycle, 0.1ms Pulse Width.

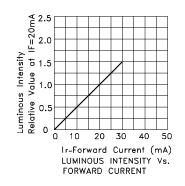
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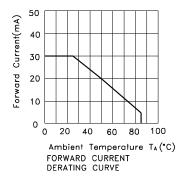


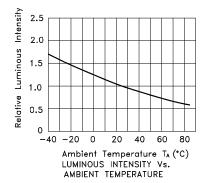
RELATIVE INTENSITY Vs. WAVELENGTH

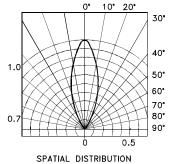
#### Yellow APTD3216YC









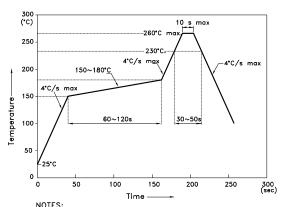


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## APTD3216YC

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.



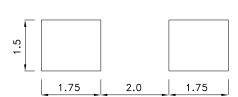
- NOTES:

  1.We recommend the reflow temperature 245°C(+/-5°C). The maximum soldering temperature should be limited to 260°C.

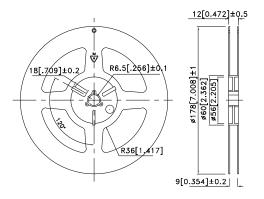
  2.Don't cause stress to the epoxy resin while it is exposed to high temperature.
- to high temperature.

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

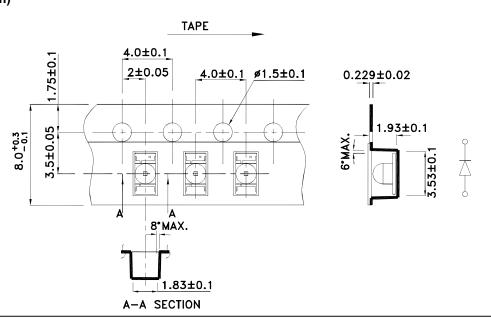
# Recommended Soldering Pattern (Units: mm; Tolerance: ± 0.1)



# **Reel Dimension**



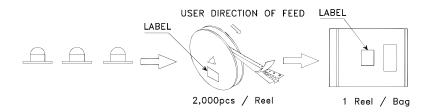
Tape Dimensions (Units : mm)

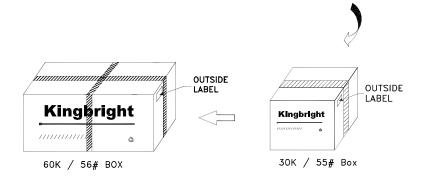


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## **PACKING & LABEL SPECIFICATIONS**

## APTD3216YC







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