



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

Part Number: APTD1608LVBC/D

Blue

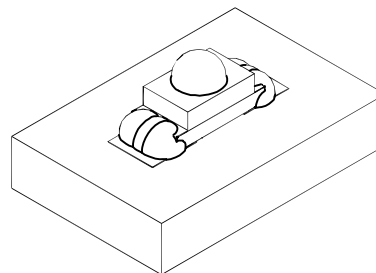
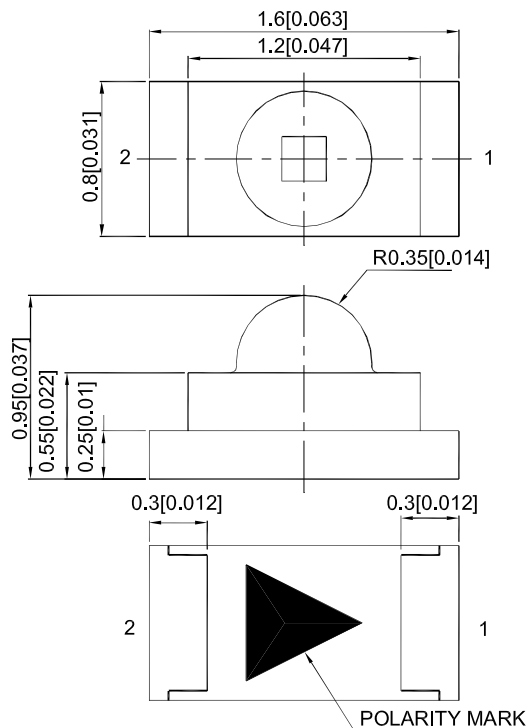
### Features

- 1.6mmX0.8mm SMT LED, 0.95mm thickness.
- Low power consumption.
- Wide viewing angle.
- Ideal for backlight and indicator.
- Package: 2000pcs / reel .
- Moisture sensitivity level : level 3.
- Low current IF=2mA operating.
- RoHS compliant.

### Descriptions

- The Blue source color devices are made with InGaN 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  $\pm 0.15(0.006")$  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.       | Dice         | Lens Type   | Iv (mcd) [2]<br>@ 2mA |      | Viewing<br>Angle [1] |
|----------------|--------------|-------------|-----------------------|------|----------------------|
|                |              |             | Min.                  | Typ. | 2θ1/2                |
| APTD1608LVBC/D | Blue (InGaN) | Water Clear | 30                    | 65   | 40°                  |

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 | Min. | Typ. | Max. | Units | Test Conditions |
|--------|--------------------------|--------|------|------|------|-------|-----------------|
| λpeak  | Peak Wavelength          | Blue   |      | 465  |      | nm    | IF=2mA          |
| λD [1] | Dominant Wavelength      | Blue   |      | 470  |      | nm    | IF=2mA          |
| Δλ1/2  | Spectral Line Half-width | Blue   |      | 22   |      | nm    | IF=2mA          |
| C      | Capacitance              | Blue   |      | 100  |      | pF    | VF=0V;f=1MHz    |
| VF [2] | Forward Voltage          | Blue   | 2.2  | 2.65 | 3    | V     | IF=2mA          |
| IR     | Reverse Current          | Blue   |      |      | 50   | uA    | VR=5V           |

Notes:

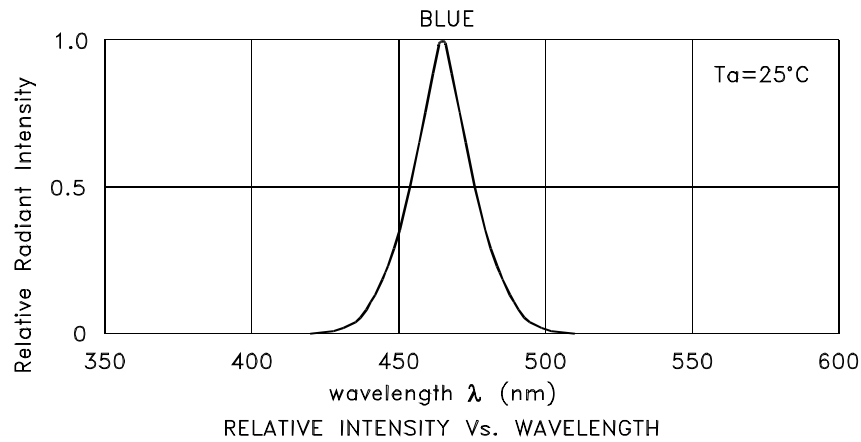
- 1.Wavelength: +/-1nm.
- 2.Forward Voltage: +/-0.1V.
- 3.Wavelength value is traceable to the CIE127-2007 compliant national standards.
- 4.Excess driving current and/or operating temperature higher than recommended conditions may result in severe light degradation or premature failure.

## Absolute Maximum Ratings at TA=25°C

| Parameter                | Blue           | Units |
|--------------------------|----------------|-------|
| Power dissipation        | 90             | mW    |
| DC Forward Current       | 30             | mA    |
| Peak Forward Current [1] | 100            | mA    |
| Reverse Voltage          | 5              | V     |
| Operating Temperature    | -40°C To +85°C |       |
| Storage Temperature      | -40°C To +85°C |       |

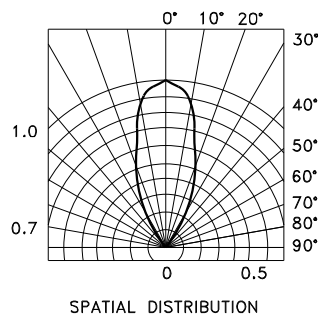
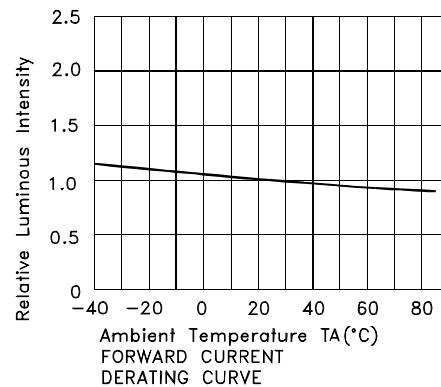
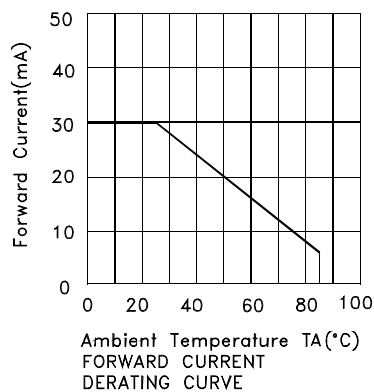
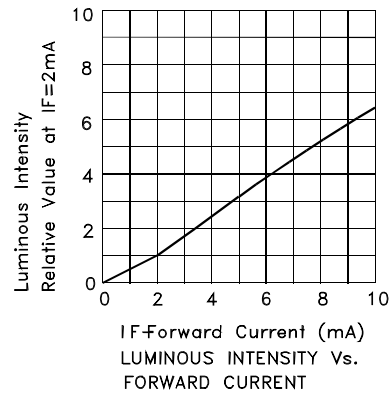
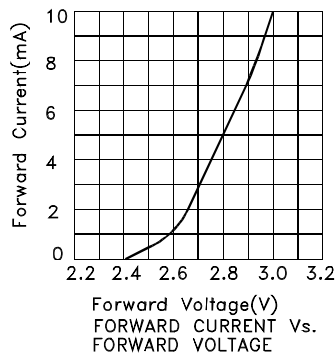
Note:

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



Blue

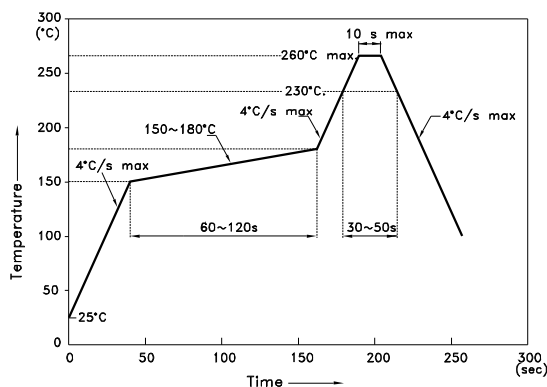
APTD1608LVBC/D



**APTD1608LVBC/D**

**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.**

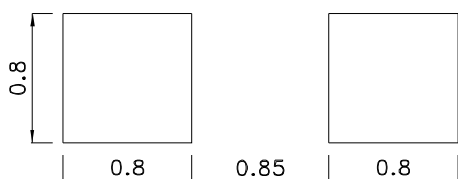
### Reflow Soldering Profile For Lead-free SMT Process.



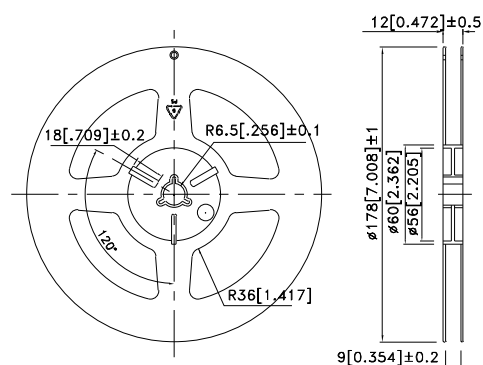
NOTES:

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.

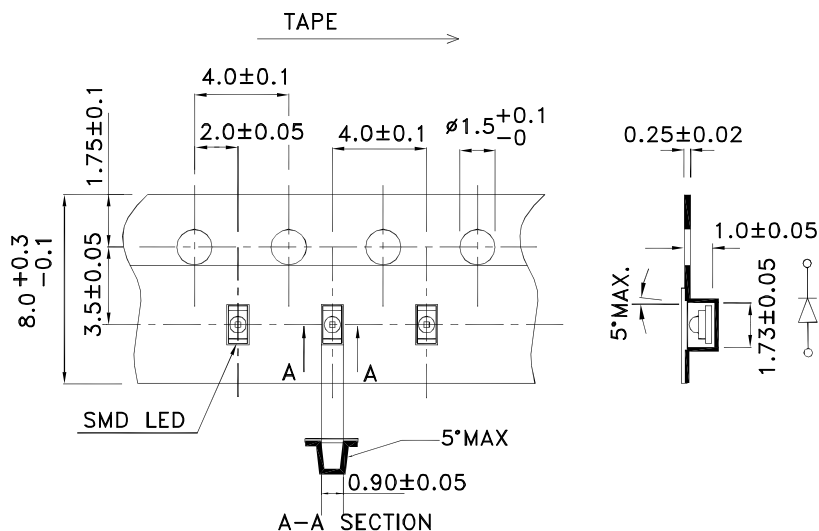
**Recommended Soldering Pattern**  
(Units : mm; Tolerance:  $\pm 0.1$ )



## Reel Dimension

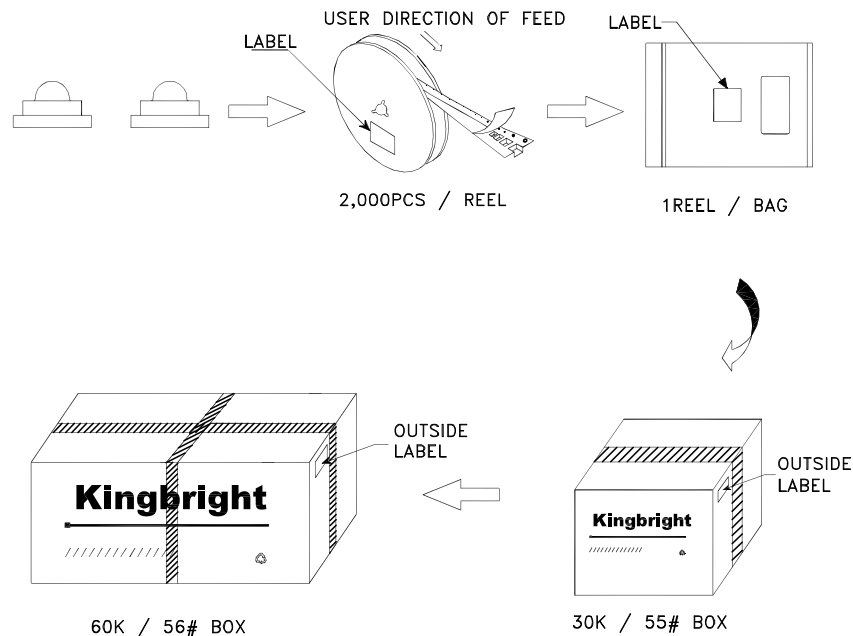


### Tape Dimensions (Units : mm)



## PACKING & LABEL SPECIFICATIONS

APTD1608LVBC/D



|                                                                                      |                             |
|--------------------------------------------------------------------------------------|-----------------------------|
| <b>Kingbright</b>                                                                    |                             |
| P/NO: APTD1608xxx                                                                    |                             |
| QTY: 2,000 pcs                                                                       | Q.C.                        |
| S/N: XXXX                                                                            | Q C<br>XX-XX-XXXX<br>PASSED |
| CODE: XXX                                                                            |                             |
| LOT NO:                                                                              |                             |
|  |                             |
| xxxxxxxxxxxxxxxxxxxxxxxxxxxx                                                         |                             |
| RoHS Compliant                                                                       |                             |

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- Работу по проектам и поставку образцов.
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- Тестирование поставляемой продукции.
- Поставку компонентов, требующих военную и космическую приемку.
- Входной контроль качества.
- Наличие сертификата ISO.

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- Техническую поддержку проекта.
- Защиту от снятия компонента с производства.
- Оценку стоимости проекта по компонентам.
- Изготовление тестовой платы монтаж и пусконаладочные работы.



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