

PRELIMINARY SPEC

Part Number: APECVA3010P3BT

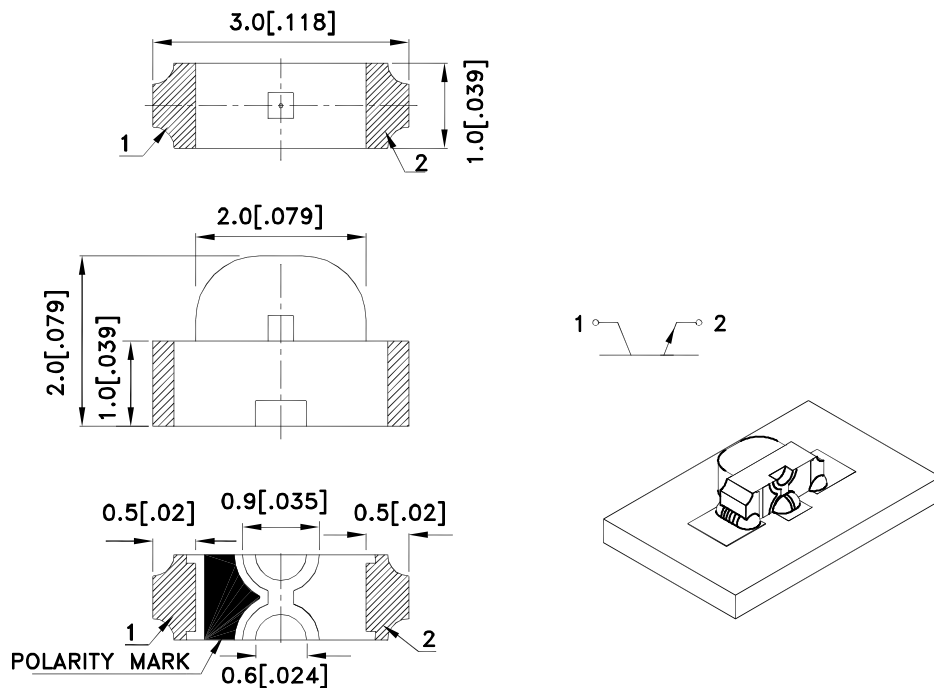
### Features

- 3.0mmx1.0mm SMT LED, 2.0mm thickness.
- Mechanically and spectrally matched to the infrared emitting LED lamp.
- Package : 2000pcs / reel.
- Moisture sensitivity level : level 3.
- RoHS compliant.

### Description

Made with NPN silicon phototransistor chips.

### Package Dimensions



#### Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is  $\pm 0.15(0.006")$  unless otherwise noted.
3. Specifications are subject to change without notice.
4. The device has a single mounting surface. The device must be mounted according to the specifications.



## Electrical / Optical Characteristics at TA=25°C

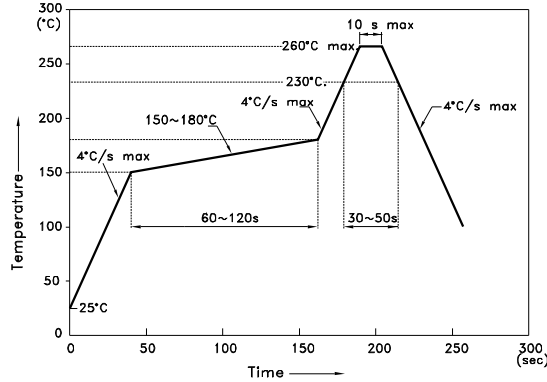
| Symbol                | Parameter                               | Min. | Typ. | Max. | Units | Test Conditions   |
|-----------------------|---|------|------|------|-------|---|
| V <sub>BR CEO</sub>   | Collector-to-Emitter Breakdown Voltage  | 30   |      |      | V     | I <sub>C</sub> =100uA<br>E <sub>e</sub> =0mW/c m <sup>2</sup>           |
| V <sub>BR ECO</sub>   | Emitter-to-Collector Breakdown Voltage  | 5    |      |      | V     | I <sub>E</sub> =100uA<br>E <sub>e</sub> =0mW/c m <sup>2</sup>           |
| V <sub>CE (SAT)</sub> | Collector-to-Emitter Saturation Voltage |      |      | 0.8  | V     | I <sub>C</sub> =2mA<br>E <sub>e</sub> =20mW/c m <sup>2</sup>            |
| I <sub>CEO</sub>      | Collector Dark Current                  |      |      | 100  | nA    | V <sub>CE</sub> =10V<br>E <sub>e</sub> =0mW/c m <sup>2</sup>            |
| T <sub>R</sub>        | Rise Time (10% to 90% )                 |      | 15   |      | us    | V <sub>CE</sub> = 5V<br>I <sub>C</sub> =1mA<br>R <sub>L</sub> =1000Ω    |
| T <sub>F</sub>        | Fall Time (90% to 10% )                 |      | 15   |      | us    |   |
| I <sub>(ON)</sub>     | On State Collector Current              | 0.2  | 0.8  |      | mA    | V <sub>CE</sub> = 5V<br>E <sub>e</sub> =1mW/c m <sup>2</sup><br>λ=940nm |

## Absolute Maximum Ratings at TA=25°C

| Parameter   | Max.Ratings    |
|---|----------------|
| Collector-to-Emitter Voltage                              | 30V            |
| Emitter-to-Collector Voltage                              | 5V             |
| Power Dissipation at (or below) 25°C Free Air Temperature | 100mW          |
| Operating Temperature                                     | -40°C To +85°C |
| Storage Temperature                                       | -40°C To +85°C |

## APECVA3010P3BT

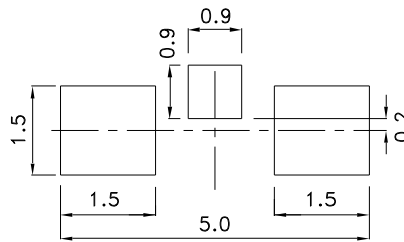
Reflow Soldering Profile For Lead-free SMT Process.



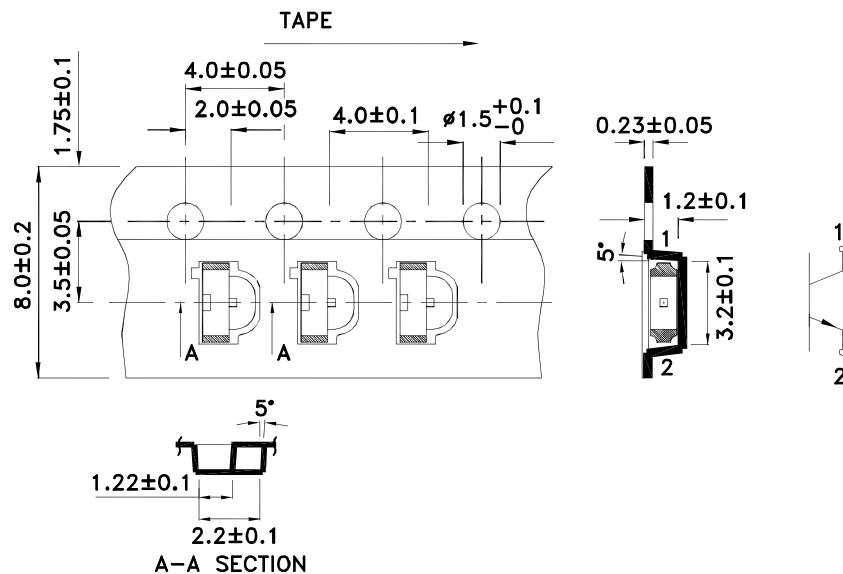
**NOTES:**

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)



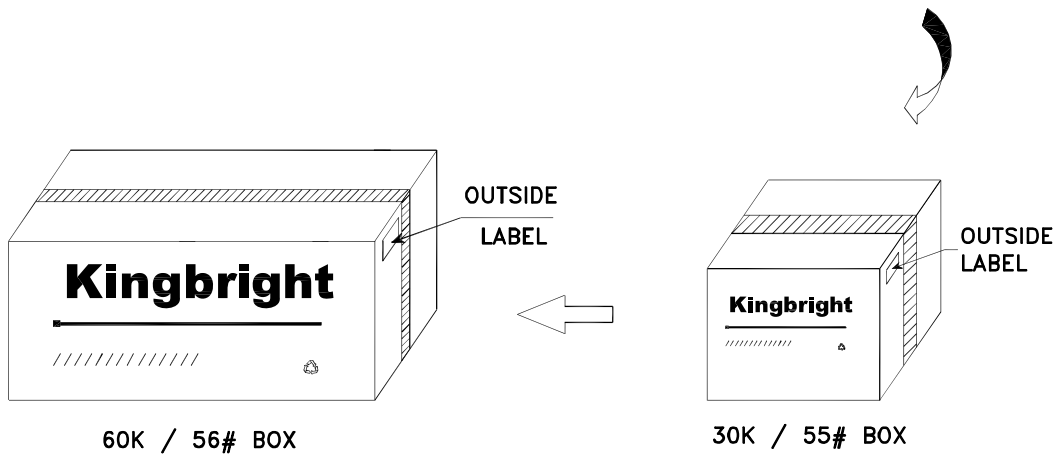
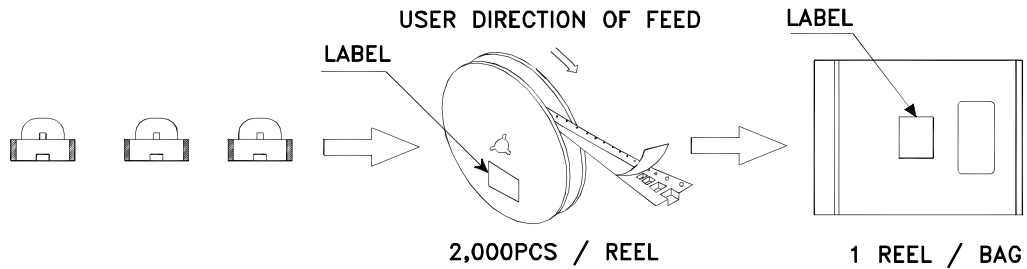
### Tape Specifications (Units : mm)




# Kingbright

## PACKING & LABEL SPECIFICATIONS

## APECVA3010P3BT



|   |      |                             |
|---|------|-----------------------------|
| <h1>Kingbright</h1>   |      |                             |
| P/NO: APECVA3010xxx   |      |                             |
| QTY: 2,000 pcs  | Q.C. | Q C<br>XX XX XXXX<br>PASSED |
| S/N: XXXX   |      |                             |
| CODE: XXX   |      |                             |
| LOT NO:   |      |                             |
| <br><small>XXXXXXXXXXXXXXXXXXXXXXXXXXXX</small> |      |                             |
| RoHS Compliant  |      |                             |