

Part Number: APBVA3010EYC

High Efficiency Red
Yellow

Features

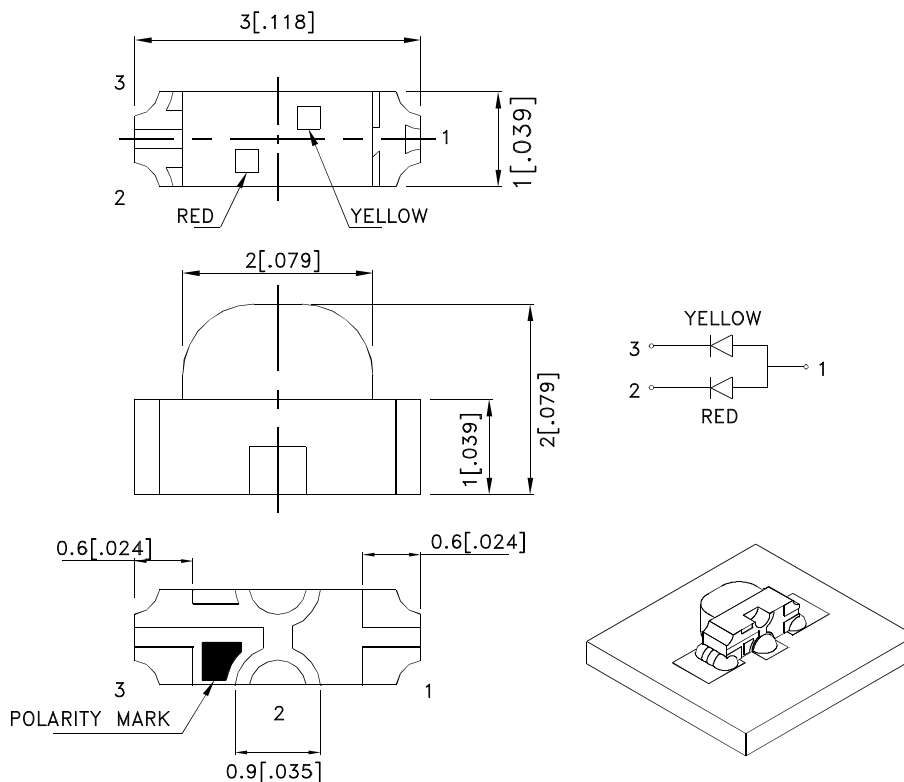
- 3.0mmx1.0mm right angle SMT LED, 2.0mm thickness.
- Low power consumption.
- Wide viewing angle.
- Ideal for backlight and indicator.
- Various colors and lens types available.
- Package : 2000pcs / reel.
- Moisture sensitivity level : level 3.
- RoHS compliant.

Description

The High Efficiency Red source color devices are made with Gallium Arsenide Phosphide on Gallium Phosphide Orange Light Emitting Diode.

The Yellow source color devices are made with Gallium Arsenide Phosphide on Gallium Phosphide Yellow 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. Specifications are subject to change without 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] @ 20mA | | Viewing Angle [1] |
|--------------|---------------------------------|-------------|------------------------|------|----------------------|
| | | | Min. | Typ. | 2θ1/2 |
| APBVA3010EYC | High Efficiency Red (GaAsP/GaP) | WATER CLEAR | 7 | 15 | 140° |
| | Yellow (GaAsP/GaP) | | 2.6 | 6 | |

Notes:

1. θ1/2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.
2. Luminous intensity/ luminous Flux: +/-15%.

Electrical / Optical Characteristics at TA=25°C

| Symbol | Parameter | Device | Typ. | Max. | Units | Test Conditions |
|--------------------|--------------------------|-------------------------------|------------|------------|-------|---------------------------|
| λ _{peak} | Peak Wavelength | High Efficiency Red Yellow | 627 590 | | nm | I _F =20mA |
| λ _D [1] | Dominant Wavelength | High Efficiency Red Yellow | 625 588 | | nm | I _F =20mA |
| Δλ _{1/2} | Spectral Line Half-width | High Efficiency Red Yellow | 45 35 | | nm | I _F =20mA |
| C | Capacitance | High Efficiency Red Yellow | 15 20 | | pF | V _F =0V;f=1MHz |
| V _F [2] | Forward Voltage | High Efficiency Red Yellow | 2 2.1 | 2.5 2.5 | V | I _F =20mA |
| I _R | Reverse Current | High Efficiency Red Yellow | | 10 10 | μA | V _R = 5V |

Notes:

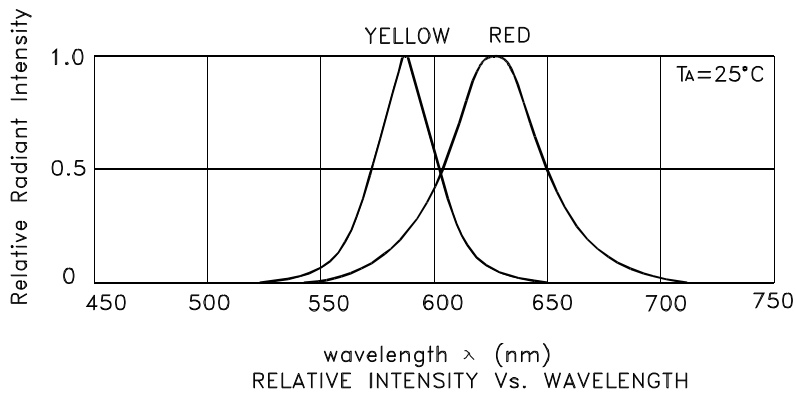
1. Wavelength: +/-1nm.
2. Forward Voltage: +/-0.1V.

Absolute Maximum Ratings at TA=25°C

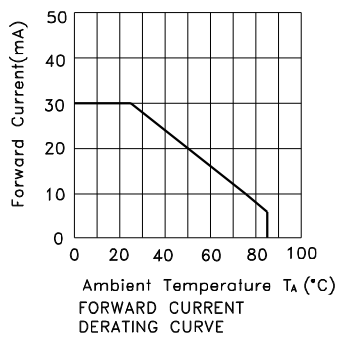
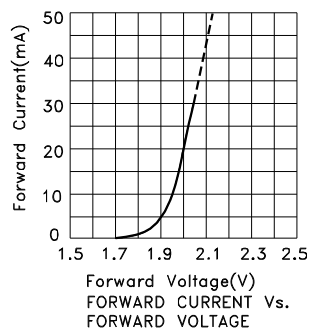
| Parameter | High Efficiency Red | Yellow | Units |
|--------------------------|---------------------|--------|-------|
| Power dissipation | 75 | 75 | mW |
| DC Forward Current | 30 | 30 | mA |
| Peak Forward Current [1] | 160 | 140 | mA |
| Reverse Voltage | 5 | | V |
| Operating Temperature | -40°C To +85°C | | |
| Storage Temperature | -40°C To +85°C | | |

Note:

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

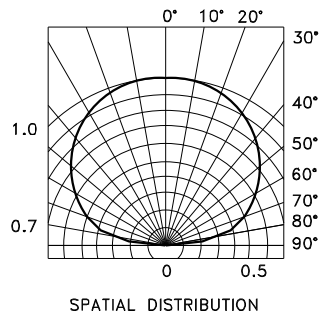
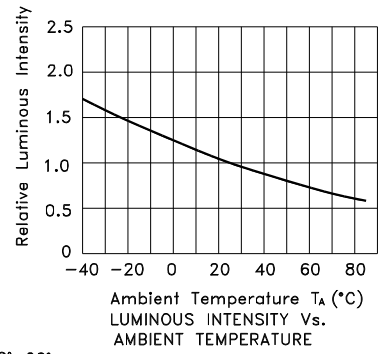
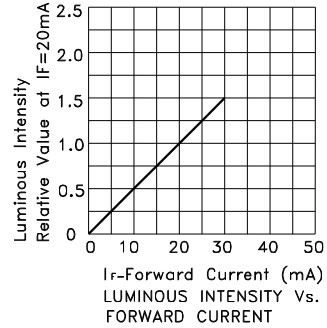
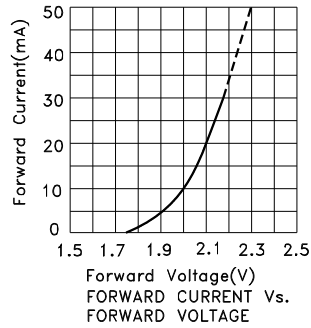


APBVA3010EYC High Efficiency Red



Kingbright

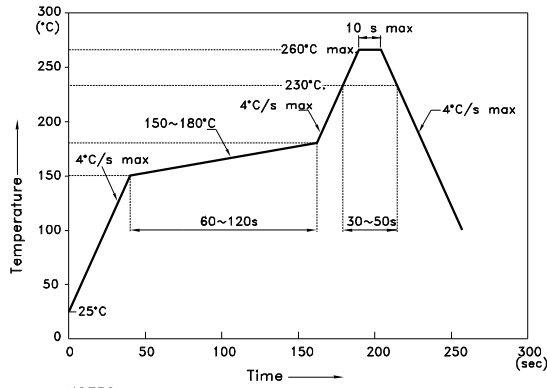
Yellow



APBVA3010EYC

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.

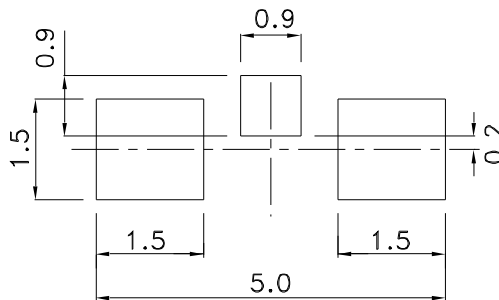
Reflow Soldering Profile For Lead-free SMT Process.



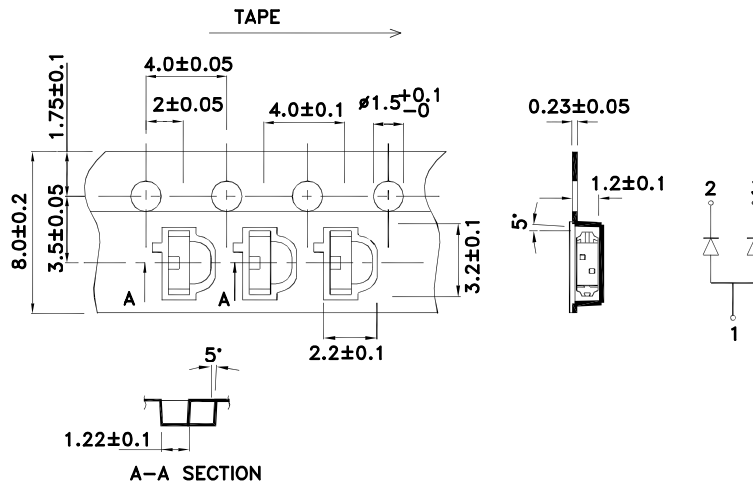
NOTES:

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)



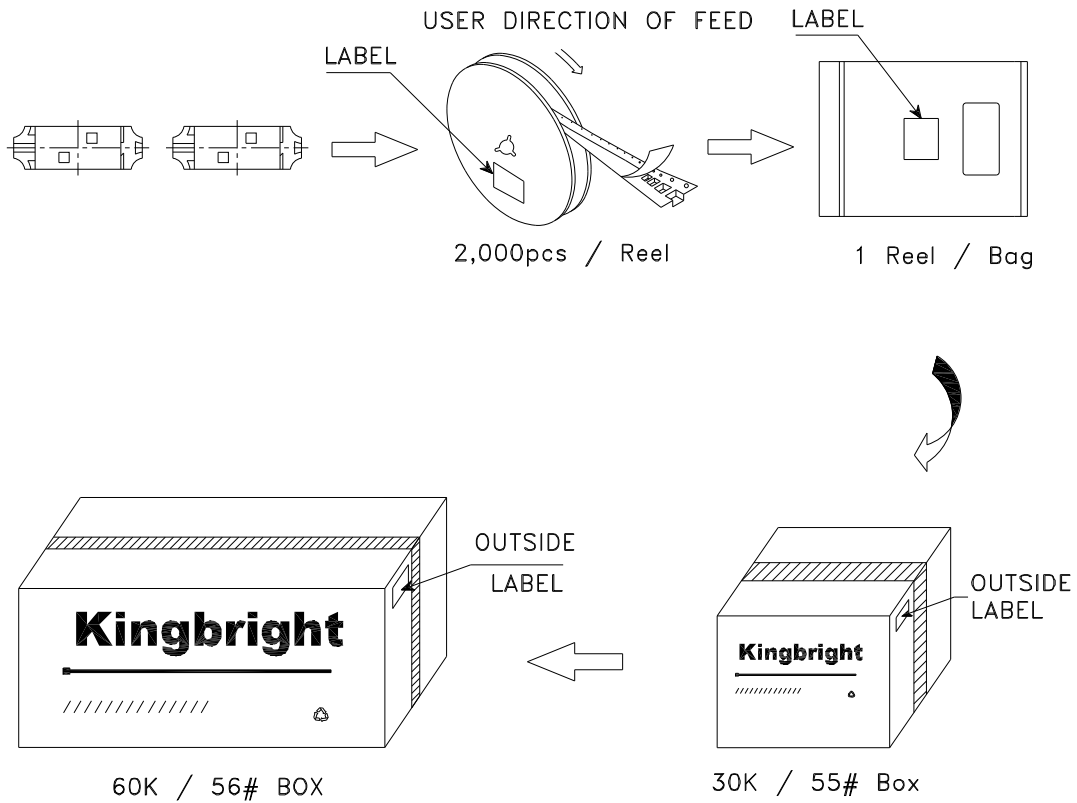
Tape Dimensions (Units : mm)




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PACKING & LABEL SPECIFICATIONS

APBVA3010EYC



| | |
|--|--|
| Kingbright | |
| P/NO: APBVA3010xxx | |
| QTY: 2,000 pcs | Q.C. Q C xx xx xxxx PASSED |
| S/N: XXXX | |
| CODE: XXX | |
| LOT NO: | |
|  xxxxxxxxxxxxxxxxxxxxxxxxxxxx | |
| RoHS Compliant | |