

Kingbright

4.0x4.0mm RIGHT ANGLE SURFACE MOUNT LED LAMP



ATTENTION
OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
DISCHARGE
SENSITIVE
DEVICES

Part Number: AA4040QBC/D

Blue

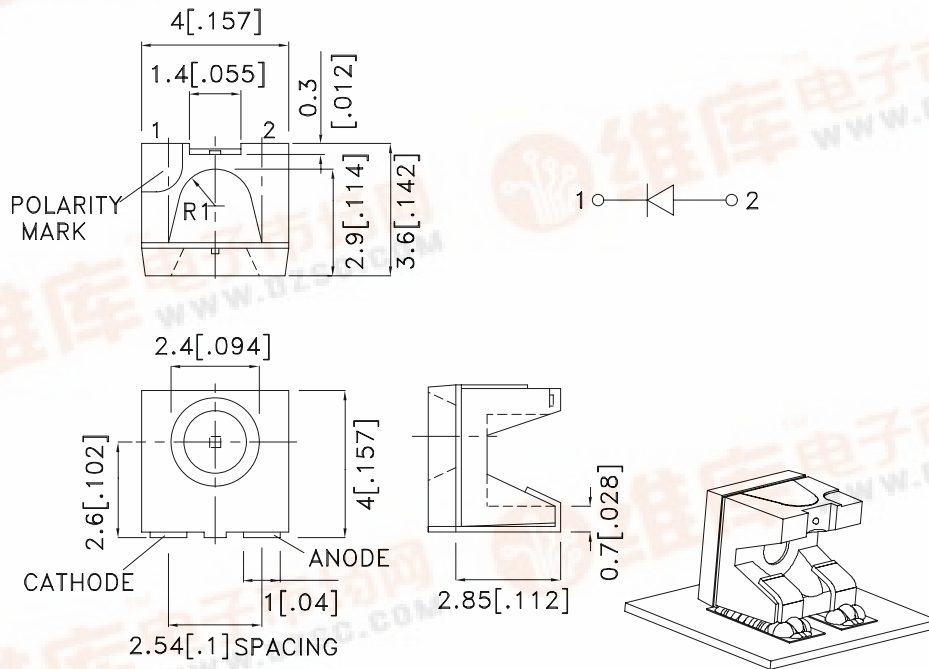
Features

- SINGLE COLOR.
- SUITABLE FOR ALL SMT ASSEMBLY AND SOLDER PROCESS.
- AVAILABLE ON TAPE AND REEL.
- IDEAL FOR BACKLIGHTING.
- PACKAGE : 500PCS / REEL.
- MOISTURE SENSITIVITY LEVEL : LEVEL 4.
- RoHS COMPLIANT.

Description

The Blue source color devices are made with AlInGaN on Sapphire Light Emitting Diode.
Static electricity and surge damage the LEDs.
It is recommended to use a wrist band or anti-electrostatic glove when handling the LEDs.
All devices, equipment and machinery must be electrically grounded.

Package Dimensions



Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is $\pm 0.25(0.01")$ 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 |
| AA4040QBC/D | Blue (AlInGaN) | WATER CLEAR | 70 | 150 | 90° |

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 | Blue | 468 | | nm | I _F =20mA |
| λ _D [1] | Dominant Wavelength | Blue | 470 | | nm | I _F =20mA |
| Δλ1/2 | Spectral Line Half-width | Blue | 25 | | nm | I _F =20mA |
| C | Capacitance | Blue | 100 | | pF | V _F =0V;f=1MHz |
| V _F [2] | Forward Voltage | Blue | 3.3 | 4 | V | I _F =20mA |
| I _R | Reverse Current | Blue | | 10 | μA | V _R =5V |

Notes:

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

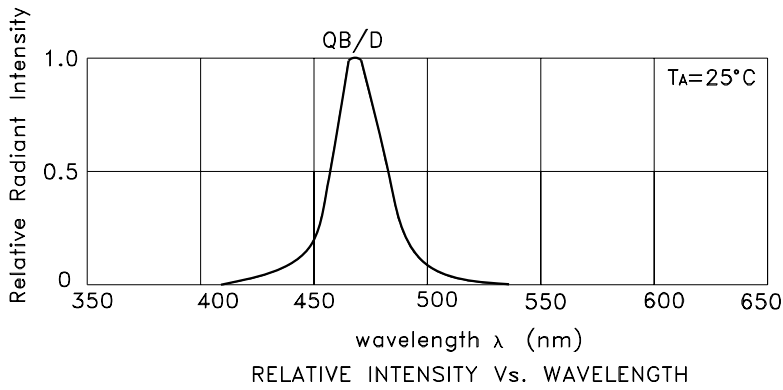
Absolute Maximum Ratings at TA=25°C

| Parameter | Blue | Units |
|--------------------------|----------------|-------|
| Power dissipation | 120 | 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:

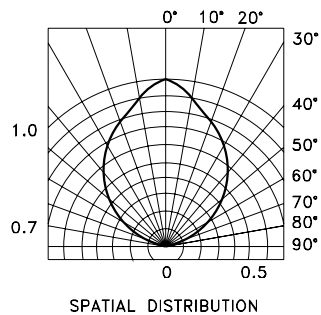
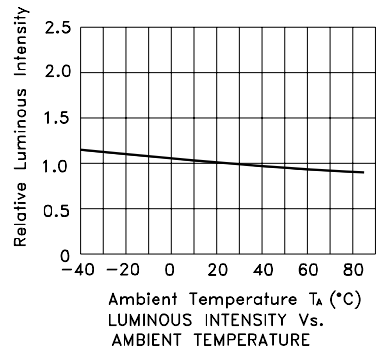
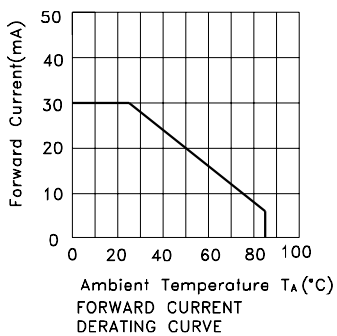
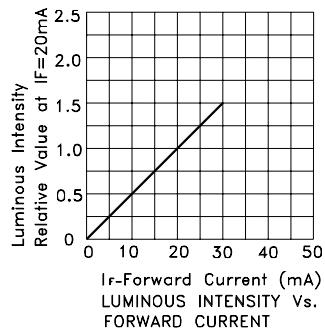
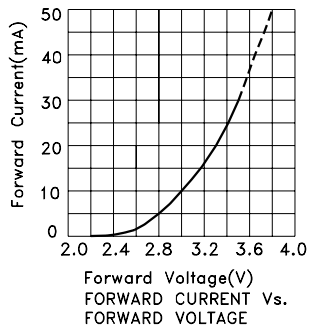
1. 1/10 Duty Cycle, 0.1ms Pulse Width.

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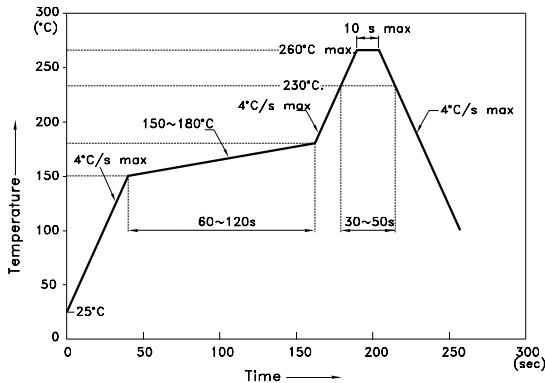
Blue

AA4040QBC/D



AA4040QBC/D

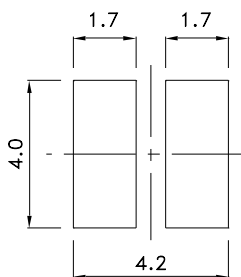
Reflow Soldering Profile For Lead-free SMT Process.



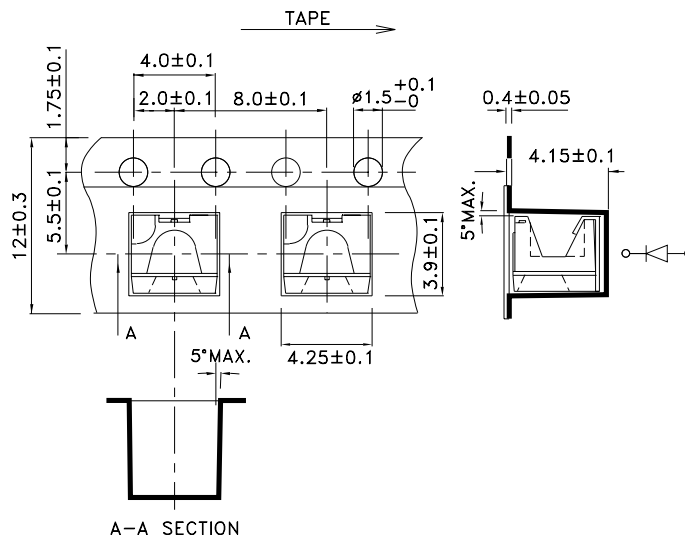
NOTES:

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)



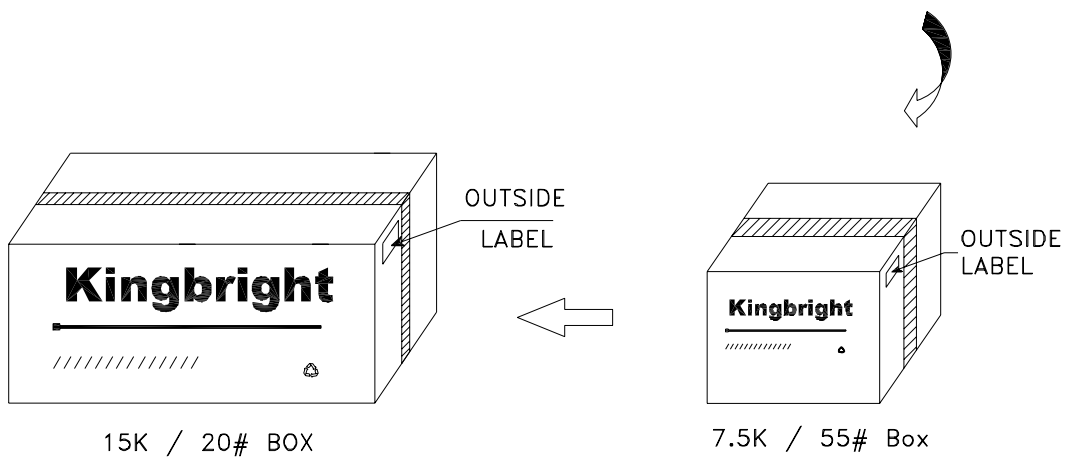
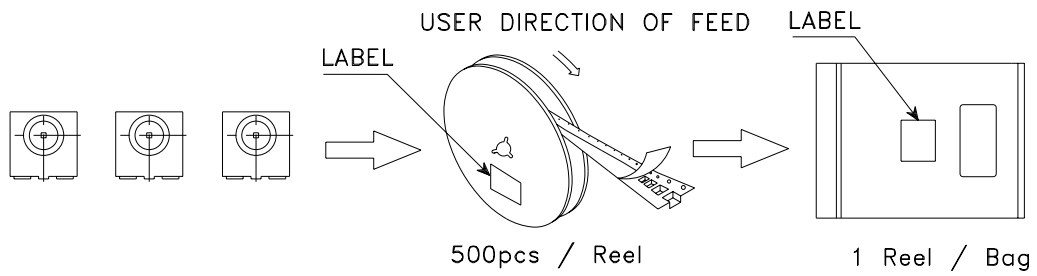
Tape Specifications (Units : mm)



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PACKING & LABEL SPECIFICATIONS

AA4040QBC/D



| | | | | |
|----------------------------------|---|-----|------------|--------|
| <h1>Kingbright</h1> | | | | |
| P/NO: AA4040xxx | | | | |
| QTY: 500 pcs | Q.C. | | | |
| S/N: XXXX | <table border="1"> <tr> <td>Q C</td> </tr> <tr> <td>XX XX XXXX</td> </tr> <tr> <td>PASSED</td> </tr> </table> | Q C | XX XX XXXX | PASSED |
| Q C | | | | |
| XX XX XXXX | | | | |
| PASSED | | | | |
| CODE: XXX | | | | |
| LOT NO: | | | | |
| XXXXXXXXXXXXXXXXXXXXXXXXXXXX | | | | |
| RoHS Compliant | | | | |