### SUBMINIATURE SOLID STATE LAMP

Blue

Part Number: AM2520QBC/D09



#### **ATTENTION**

OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
DISCHARGE
SENSITIVE
DEVICES

#### **Features**

- SUBMINIA TURE PACKAGE.
- WIDE VIEWING ANGLE.
- Z-BEND LEAD.
- LONG LIFE SOLID STATE RELIABILITY.
- LOW PACKAGE PROFILE.
- MOISTURE SENSITIVITY LEVEL: LEVEL 3.
- PACKAGE: 1000PCS/REEL.
- RoHS COMPLIANT.

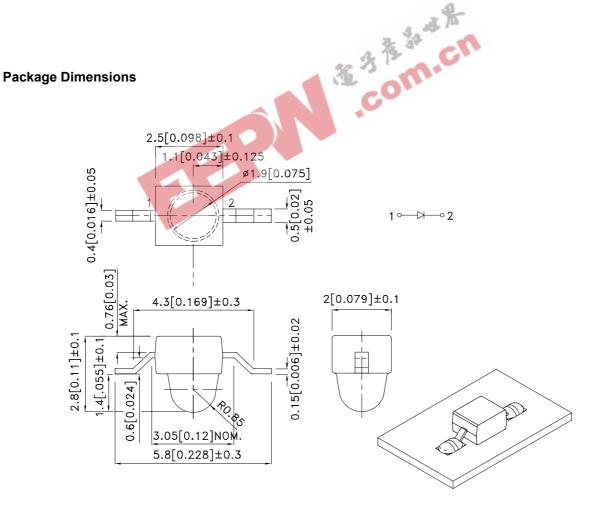
#### Description

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

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#### Notes:

- All dimensions are in millimeters (inches).
- 2. Tolerance is  $\pm 0.25(0.01")$  unless otherwise noted.
- 3. Lead spacing is measured where the leads emerge from the package.
- 4. Specifications are subject to change without notice.
- 5. The device has a single mounting surface. The device must be mounted according to the specifications.

(Pb)



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 APPROVED: WYNEC
 CHECKED: Allen Liu
 DRAWN: Y.L.LI
 ERP: 1202000592

### **Selection Guide**

| Part No.      | Dice           | Lens Type   | lv (mcd) [2]<br>@ 20mA |      | Viewing<br>Angle [1] |
|---------------|----------------|-------------|------------------------|------|----------------------|
|               |                | ,           | Min.                   | Тур. | 201/2                |
| AM2520QBC/D09 | Blue (AllnGaN) | WATER CLEAR | 180                    | 500  | 20°                  |

#### Notes:

- 1. 01/2 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 | Тур. | Max.    | Units | Test Conditions    |
|--------|--------------------------|--------|------|---------|-------|--------------------|
| λpeak  | Peak Wavelength          | Blue   | 468  | 4.16    | nm    | IF=20mA            |
| λD [1] | Dominant Wavelength      | Blue   | 470  | 30      | nm    | IF=20mA            |
| Δλ1/2  | Spectral Line Half-width | Blue   | 25   | William | nm    | IF=20mA            |
| С      | Capacitance              | Blue   | 100  |         | pF    | VF=0V;f=1MHz       |
| VF [2] | Forward Voltage          | Blue   | 3.3  | 4       | V     | IF=20mA            |
| lR     | Reverse Current          | Blue   |      | 10      | uA    | V <sub>R</sub> =5V |

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

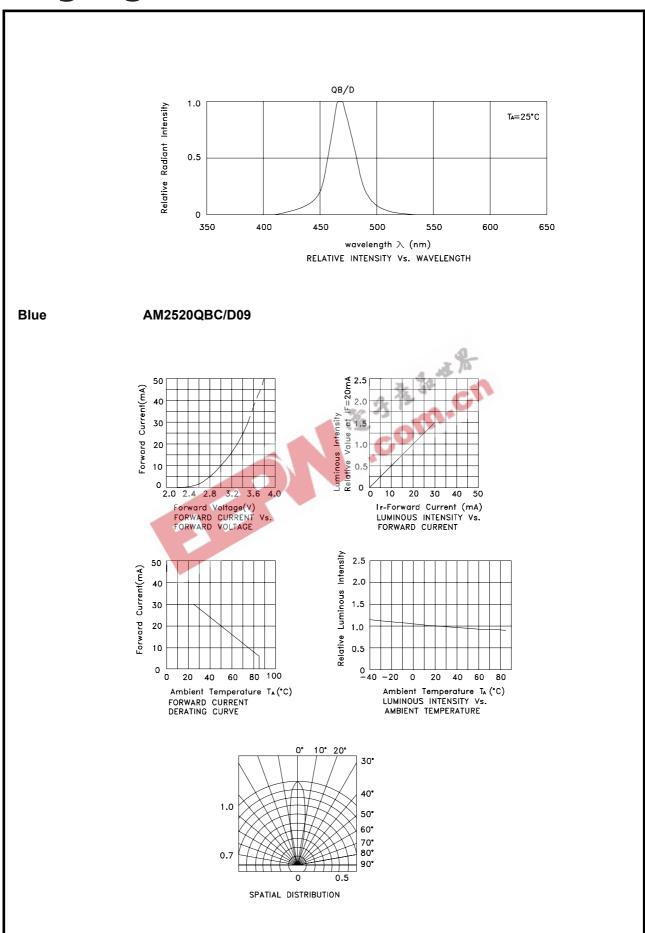
# Absolute Maximum Ratings at TA=25°C

| 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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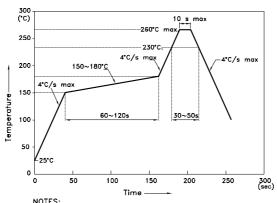


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## AM2520QBC/D09

Reflow Soldering Profile For Lead-free SMT Process.

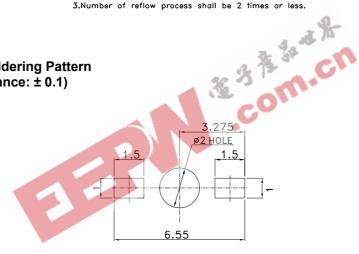


NOTES:

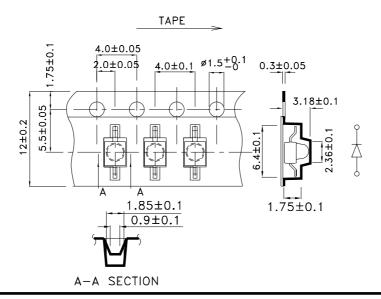
1.We recommend the reflow temperature 245°C(+/-5°C).The maximum soldering temperature should be limited to 260°C. 2.Don't cause stress to the epoxy resin while it is exposed to high temperature.

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

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



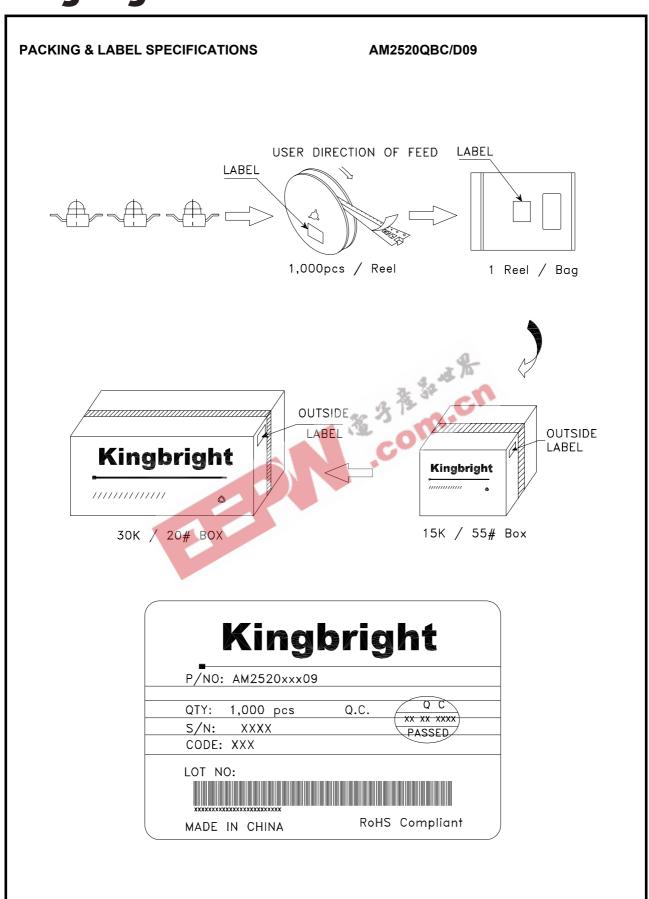
### **Tape Specifications** (Units: mm)



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