Kingbright

Part Number: APL3015QBC/D-F01   Blue

ATTENTION
OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
DISCHARGE
SENSITIVE
DEVICES

Features

● 3.0mmx1.5mm SMT LED, 1.4mm 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 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

POLARITY MARK

1.5[.059]

LED CHIP

3[.118]
2[.079]
1.5[.059]
0.5[.02]
1.4[.055]

1 ▷ 2

1.6[.063]
1.5[.059]
1   2
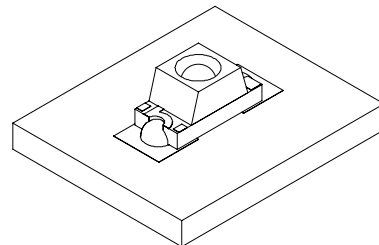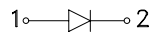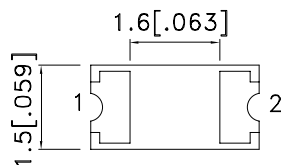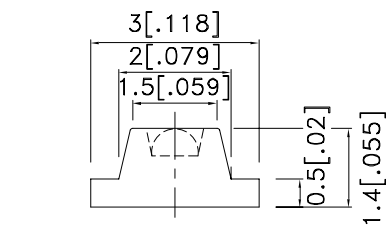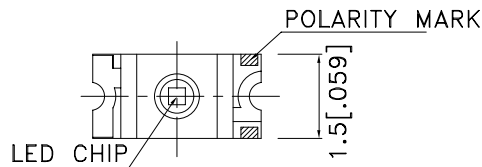
Notes:
1. All dimensions are in millimeters (inches).
2. Tolerance is ±0.2(0.008") unless otherwise noted.
3. Specifications are subject to change without notice.
4.The device has a single mounting surface. The device must be mounted according to the specifications.

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Selection Guide

Part No.	Dice	Lens Type	Iv (mcd) [2] @ 20mA		Viewing Angle [1]
			Min.	Typ.	2θ1/2
APL3015QBC/D-F01	Blue (AlInGaN)	WATER CLEAR	70	180	70°

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

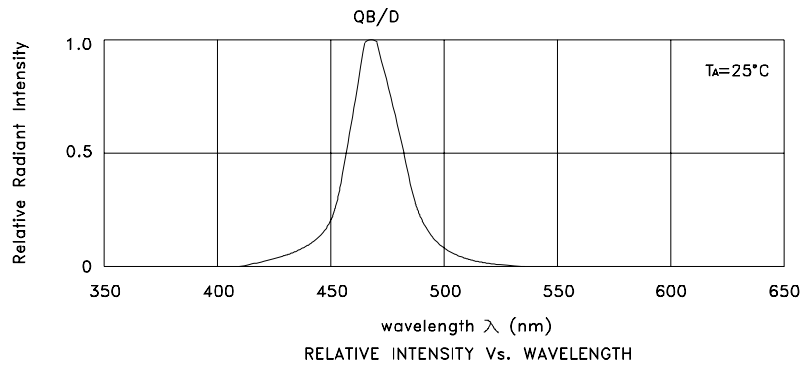| Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
λpeak	Peak Wavelength	Blue	468		nm	I_F=20mA
λD [1]	Dominant Wavelength	Blue	470		nm	I_F=20mA
Δλ1/2	Spectral Line Half-width	Blue	25		nm	I_F=20mA
C	Capacitance	Blue	100		pF	V_F=0V;f=1MHz
V_F [2]	Forward Voltage	Blue	3.3	4	V	I_F=20mA
I_R	Reverse Current	Blue		10	uA	V_R=5V

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

Absolute Maximum Ratings at TA=25°C

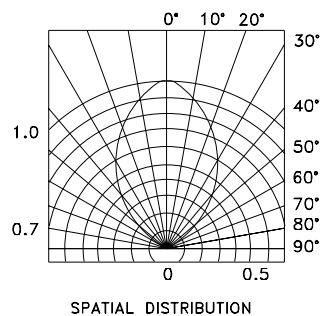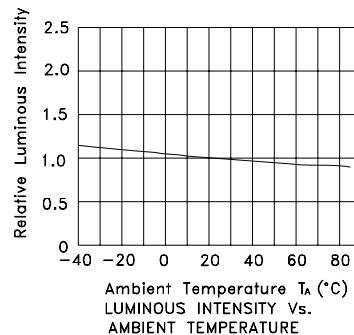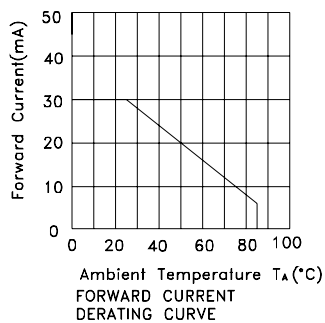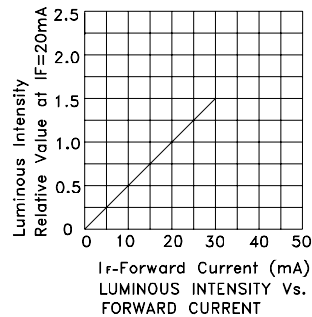| Parameter	Blue	Units
Power dissipation	120	mW
DC Forward Current	30	mA
Peak Forward Current [1]	150	mA
Reverse Voltage	5	V
Operating Temperature	-40°C To +85°C	
Storage Temperature	-40°C To +85°C	

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

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QB/D

Relative Radiant Intensity

$T_A=25°C$

RELATIVE INTENSITY Vs. WAVELENGTH

wavelength λ (nm)

Blue   **APL3015QBC/D-F01**

Forward Current(mA)

Forward Voltage(V)
FORWARD CURRENT Vs.
FORWARD VOLTAGE

Luminous Intensity
Relative Value at IF=20mA
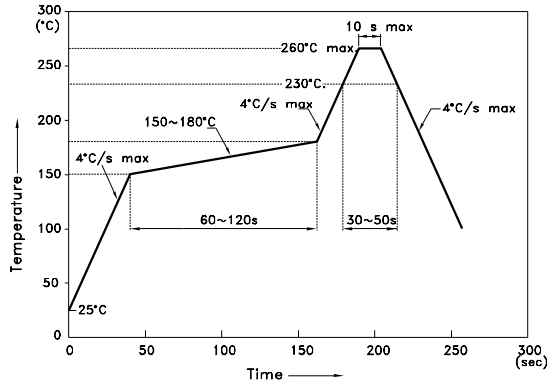
I_F-Forward Current (mA)
LUMINOUS INTENSITY Vs.
FORWARD CURRENT

Forward Current(mA)

Ambient Temperature T_A (°C)
FORWARD CURRENT
DERATING CURVE

Relative Luminous Intensity

Ambient Temperature T_A (°C)
LUMINOUS INTENSITY Vs.
AMBIENT TEMPERATURE

0° 10° 20°
30°
40°
50°
60°
70°
80°
90°

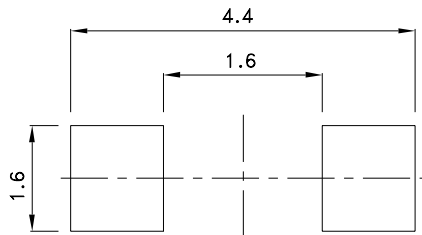SPATIAL DISTRIBUTION

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APL3015QBC/D-F01
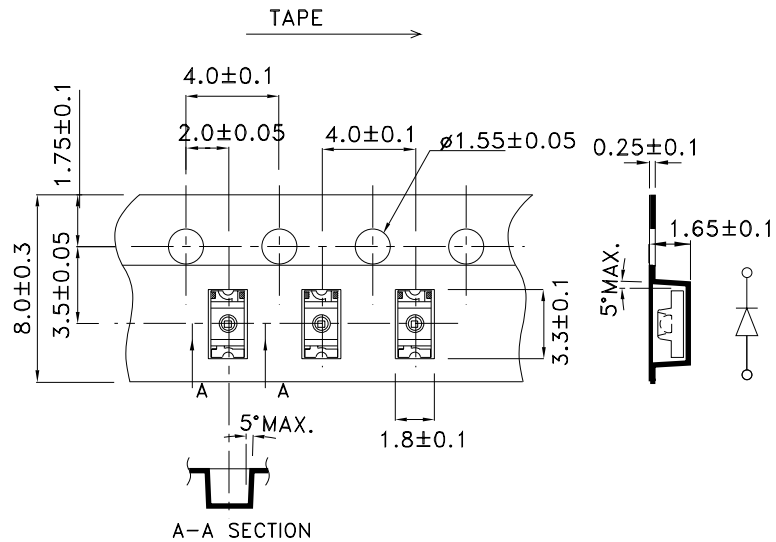
Reflow Soldering Profile For Lead-free SMT Process.

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.

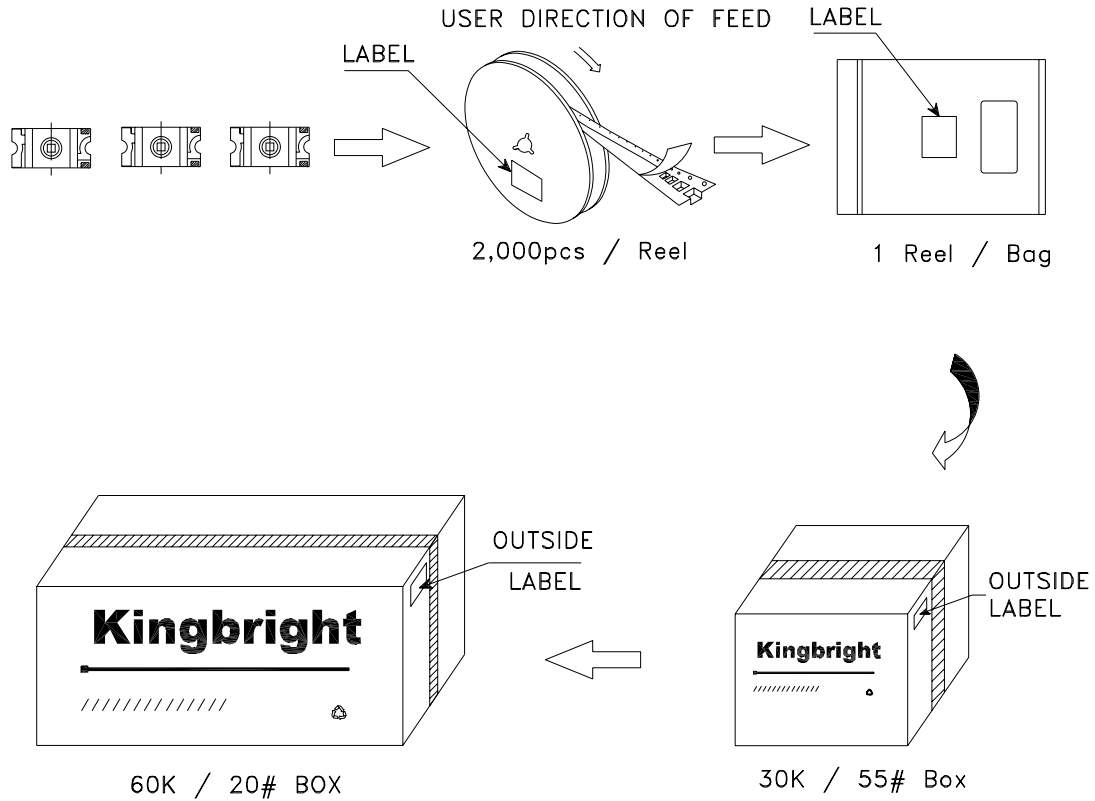## Recommended Soldering Pattern
(Units : mm; Tolerance: ± 0.1)

Tape Specifications
(Units : mm)

A-A SECTION

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PACKING & LABEL SPECIFICATIONS APL3015QBC/D-F01

LABEL

USER DIRECTION OF FEED LABEL

LABEL

2,000pcs / Reel

1 Reel / Bag

OUTSIDE LABEL

OUTSIDE LABEL

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60K / 20# BOX

30K / 55# Box

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P/NO: APL3015xxx

QTY: 2,000 pcs   Q.C.

S/N: XXXX

CODE: XXX

LOT NO:

Q C
XX XX XXXX
PASSED

xxxxxxxxxxxxxxxxxxxxxxxx

MADE IN CHINA   RoHS Compliant