

Kingbright

3.0x2.0mm SURFACE MOUNT LED LAMP

PRELIMINARY SPEC

Part Number: AA3020AZGC

Green



ATTENTION
OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
DISCHARGE
SENSITIVE
DEVICES

Features

- 3.0MM X 2.0MM, 1.4MM HIGH, ONLY MINIMUM SPACE REQUIRED.
- SUITABLE FOR COMPACT OPTOELECTRONIC APPLICATIONS.
- LOW POWER CONSUMPTION.
- PACKAGE : 2000PCS / REEL.
- MOISTURE SENSITIVITY LEVEL : LEVEL 4.
- RoHS COMPLIANT.

Description

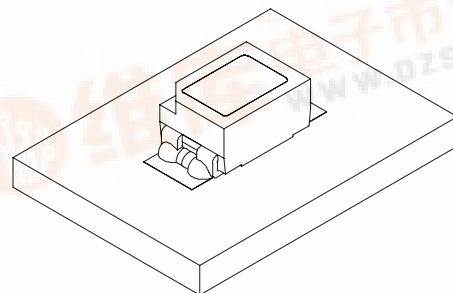
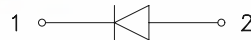
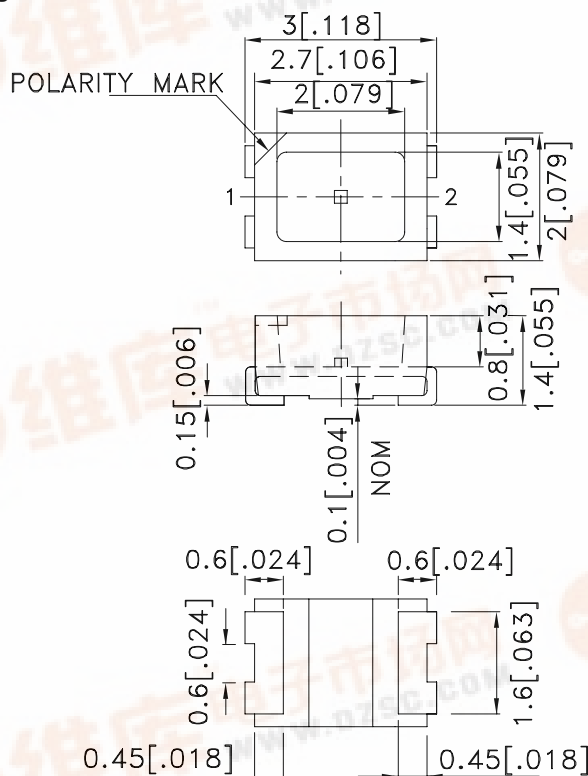
The Green source color devices are made with AlInGaN on Sapphire Light Emitting Diode.

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 ± 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
AA3020AZGC	Green (AlInGaN)	WATER CLEAR	110	250	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
λpeak	Peak Wavelength	Green	515		nm	IF=20mA
λD [1]	Dominant Wavelength	Green	525		nm	IF=20mA
Δλ1/2	Spectral Line Half-width	Green	30		nm	IF=20mA
C	Capacitance	Green	45		pF	VF=0V;f=1MHz
VF [2]	Forward Voltage	Green	3.3	4.1	V	IF=20mA
IR	Reverse Current	Green		10	uA	VR=5V

Notes:

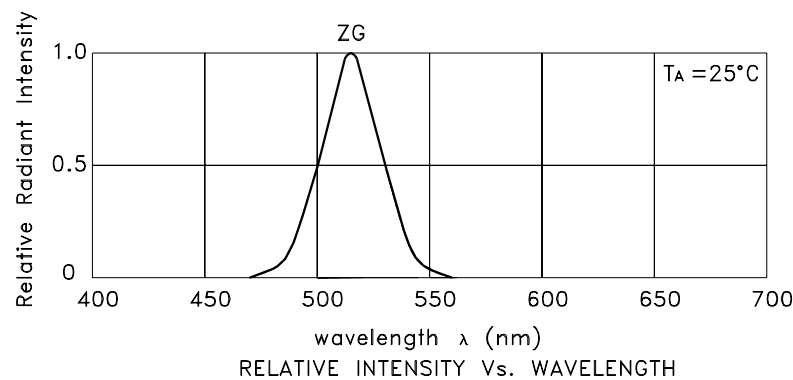
- 1.Wavelength: +/-1nm.
2. Forward Voltage: +/-0.1V.

Absolute Maximum Ratings at TA=25°C

Parameter	Green	Units
Power dissipation	102.5	mW
DC Forward Current	25	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.



Green

AA3020AZGC

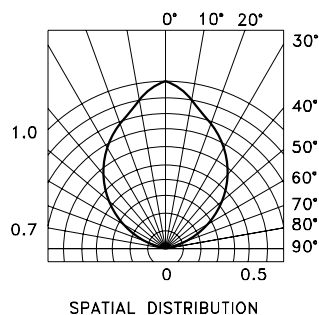
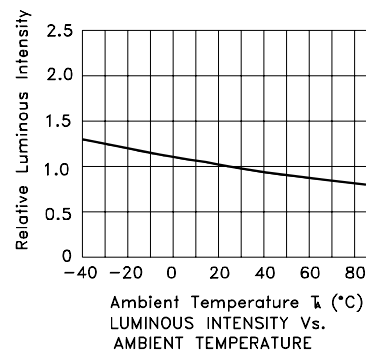
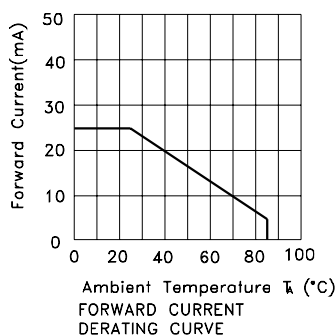
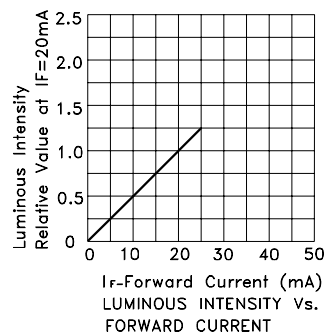
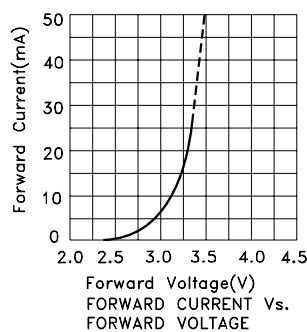


Figure 1 is a line graph showing the temperature profile of the furnace during the heat treatment of the specimen. The Y-axis represents Temperature in degrees Celsius (°C), ranging from 0 to 300. The X-axis represents Time in seconds (sec), ranging from 0 to 300. The profile starts at 25°C at 0 seconds. It rises at a rate of 4°C/s to 150°C at 40 seconds. From 150°C, it continues to rise at 4°C/s to 180°C at 60 seconds. From 180°C, it continues to rise at 4°C/s to 230°C at 160 seconds. From 230°C, it continues to rise at 4°C/s to 260°C at 190 seconds. It then holds at 260°C for 10 seconds. Finally, it cools at a rate of 4°C/s to 100°C at 250 seconds.

Time (sec)	Temperature (°C)	Rate (°C/s)
0	25	-
40	150	4
60	180	4
160	230	4
190	260	4
200	260	0
250	100	-4

A diagram of a 2D rectangular domain. The domain is a rectangle with a width of 1.4 and a height of 1.5. A vertical line segment is drawn in the center of the rectangle, extending from the bottom edge to the top edge. A horizontal line segment is drawn across the center of the rectangle, extending from the left edge to the right edge. The dimensions 1.4 and 1.5 are labeled with arrows indicating the width and height respectively.

Technical drawing of a tape reel showing dimensions and a cross-section A-A.

Top View Dimensions:

- Overall width: 8.0 ± 0.3
- Inner width: 3.5 ± 0.05
- Distance from inner edge to first hole: 1.75 ± 0.1
- Hole diameter: 4.0 ± 0.1
- Distance between holes: 2.0 ± 0.05
- Distance from last hole to inner edge: 4.0 ± 0.1
- Distance from last hole to outer edge: 1.55 ± 0.05
- Radius of outer edge: 3.3 ± 0.1
- Distance from center of reel to center of hole: 2.25 ± 0.1

Section A-A Dimensions:

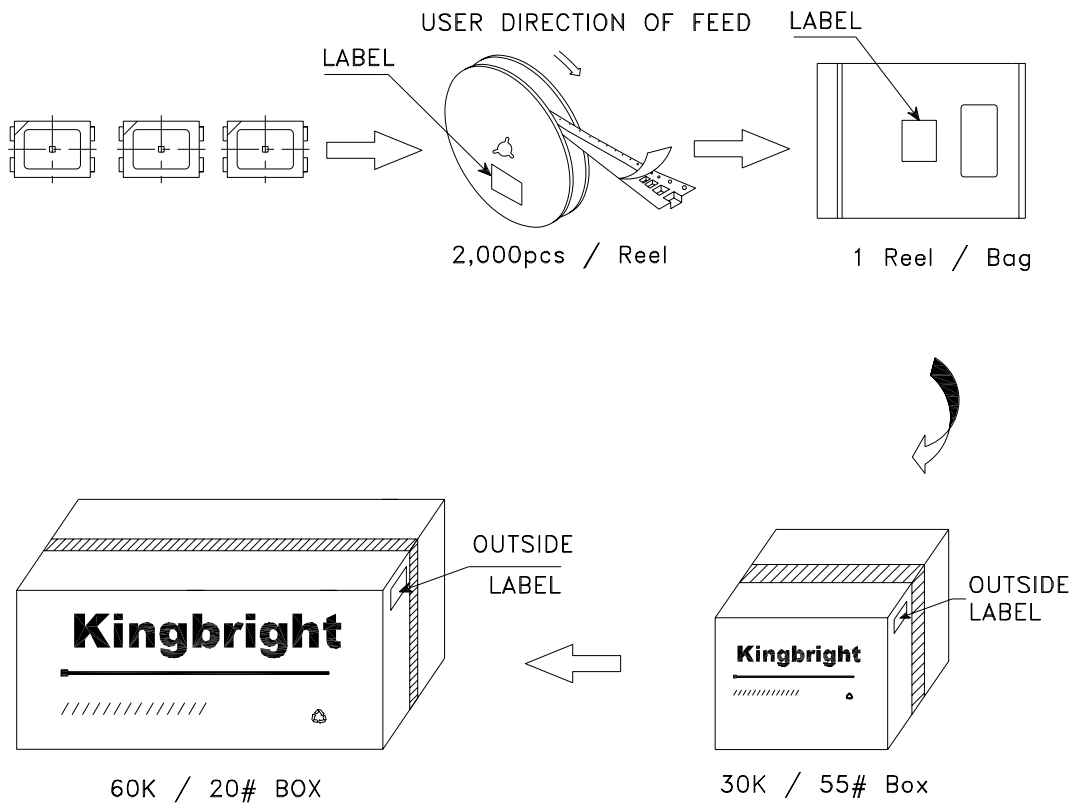
- Section line: A-A
- Section angle: 5°MAX.
- Section width: 0.25 ± 0.1
- Section height: 1.65 ± 0.1

Other Features:

- TAPE direction arrow pointing right.
- Section A-A shows a cross-section of the reel with a 5°MAX. angle.

PACKING & LABEL SPECIFICATIONS

AA3020AZGC



Kingbright				
P/NO: AA3020Axxx				
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Q C				
xx xx xxxx				
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S/N: XXXX				
CODE: XXX				
LOT NO:				
				
RoHS Compliant				