

Kingbright

SUBMINIATURE SOLID STATE LAMP

PRELIMINARY SPEC



ATTENTION
OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
DISCHARGE
SENSITIVE
DEVICES

Part Number: AM27PBC/A09

Blue

Features

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

Description

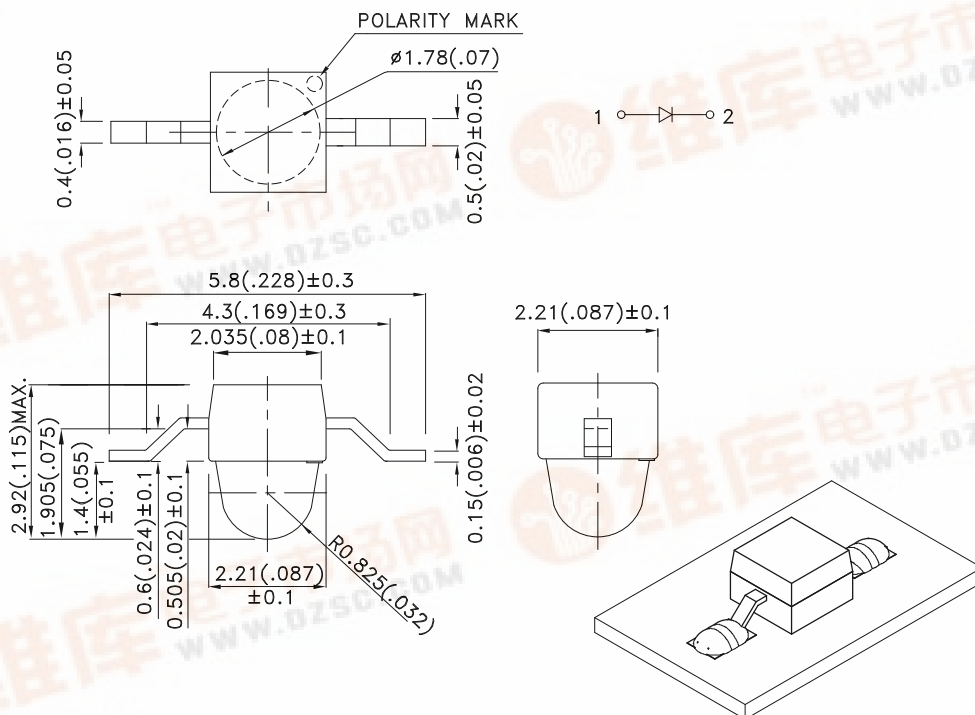
The Blue source color devices are made with InGaN on SiC Light Emitting Diode.

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. 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.



Selection Guide

Part No.	Dice	Lens Type	Iv (mcd) [2] @ 20mA		Viewing Angle [1]
			Min.	Typ.	2θ1/2
AM27PBC/A09	Blue (InGaN)	WATER CLEAR	110	250	20°

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	IF=20mA
λD [1]	Dominant Wavelength	Blue	470		nm	IF=20mA
Δλ1/2	Spectral Line Half-width	Blue	21		nm	IF=20mA
C	Capacitance	Blue	100		pF	VF=0V;f=1MHz
VF [2]	Forward Voltage	Blue	3.2	4	V	IF=20mA
IR	Reverse Current	Blue		10	uA	VR=5V

Notes:

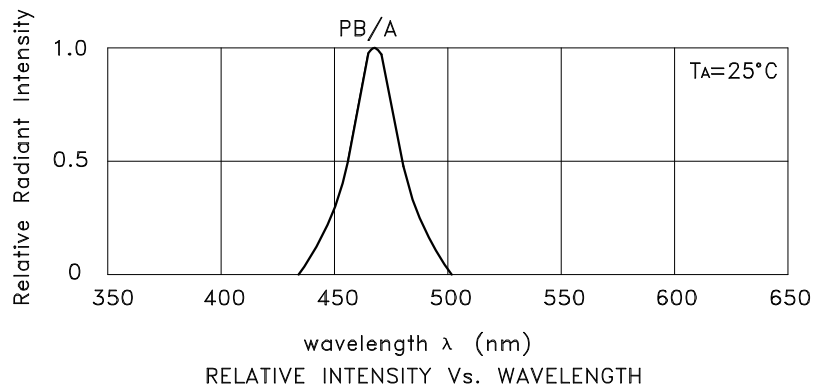
- 1.Wavelength: +/-1nm.
2. Forward Voltage: +/-0.1V.

Absolute Maximum Ratings at TA=25°C

Parameter	Blue	Units
Power dissipation	120	mW
DC Forward Current	30	mA
Peak Forward Current [1]	100	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.



Blue

AM27PBC/A09

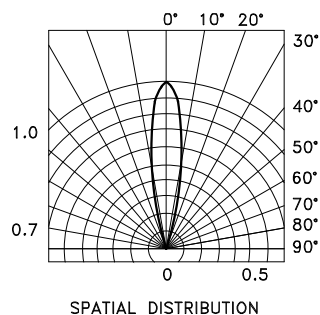
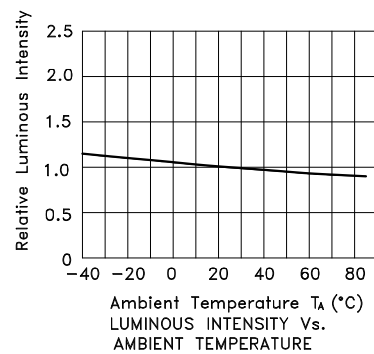
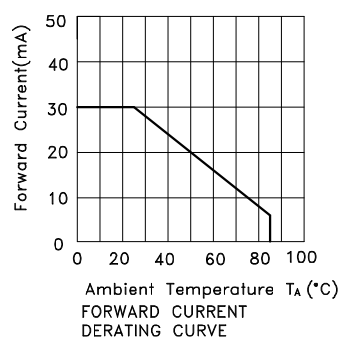
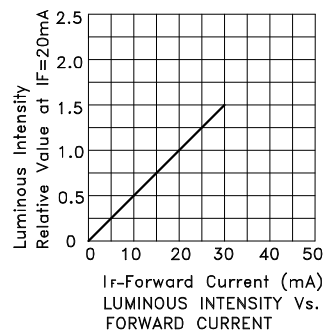
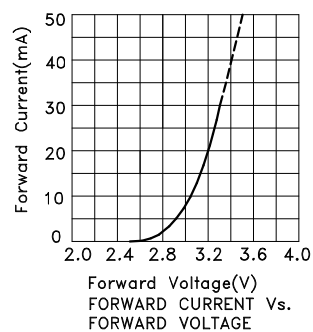


Figure 1 is a graph showing the temperature profile of the sample during the DSC measurement. The y-axis represents Temperature (°C) from 0 to 300, and the x-axis represents Time (sec) from 0 to 300. The profile starts at 25°C, rises at 4°C/s to 150~180°C (60~120s), then rises at 4°C/s to 260°C max (30~50s), holds at 260°C max for 10s, and finally cools at 4°C/s.

NOTES:

1. We recommend the reflow temperature $245^{\circ}\text{C} (+/-5^{\circ}\text{C})$. 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.

Technical drawing of a mechanical part showing a cross-section. The drawing includes the following dimensions and features:

- Overall width: 6.55
- Distance from left edge to center of hole: 3.275
- Distance from right edge to center of hole: 1.5
- Radius of the hole: $\varnothing 2$ HOLE
- Radius of the part: 1.5

Technical drawing of a mechanical part showing a front view, a side view, and a cross-section A-A.

Front View Dimensions:

- Overall width: 12 ± 0.2
- Overall height: 1.75 ± 0.1
- Distance from top edge to center of first hole: 5.5 ± 0.05
- Distance between centers of first and second holes: 4.0 ± 0.05
- Distance between centers of second and third holes: 4.0 ± 0.1
- Distance between centers of third and fourth holes: $\varnothing 1.5^{+0.1}_{-0}$
- Distance from center of first hole to center line: 1.85 ± 0.1
- Distance from center line to center of last hole: 0.9 ± 0.1

Side View Dimensions:

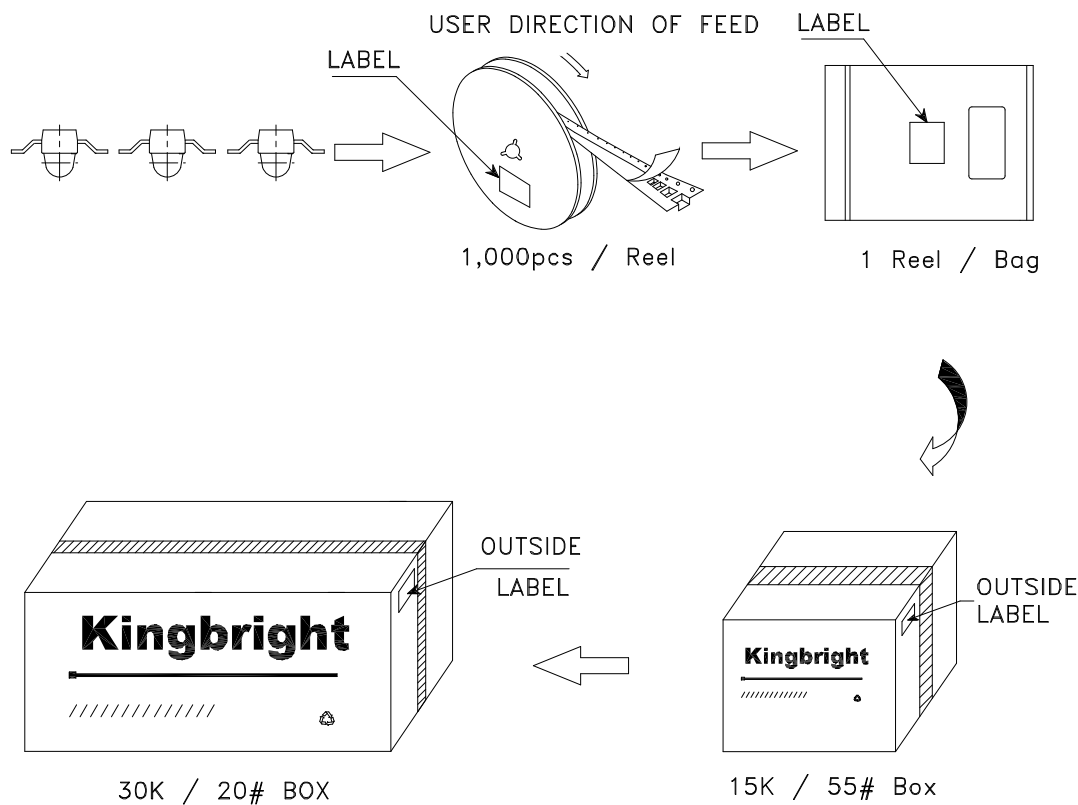
- Overall height: 6.4 ± 0.1
- Distance from top edge to center of first hole: 3.18 ± 0.1
- Distance from center of first hole to center line: 2.36 ± 0.1
- Distance from center line to center of last hole: 0.3 ± 0.05

Cross-section A-A:

The cross-section A-A shows the internal structure of the part, including a central cavity and a flange.

PACKING & LABEL SPECIFICATIONS

AM27PBC/A09



Kingbright	
P/NO: AM27xxx09	
QTY: 1,000 pcs	Q.C. Q C xx xx xxxx PASSED
S/N: XXXX	
CODE: XXX	
LOT NO:	
 xxxxxxxxxxxxxxxxxxxxxxxx	
RoHS Compliant	