



ATTENTION
OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
DISCHARGE
SENSITIVE
DEVICES

AM27MBCK09

BLUE

Features

- SUBMINIATURE PACKAGE.
- WIDE VIEWING ANGLE.
- Z-BEND LEAD.
- LONGLIFE-SOLID STATE RELIABILITY.
- LOW PACKAGE PROFILE.
- PACKAGE :1000PCS / REEL.
- RoHS COMPLIANT.

Description

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

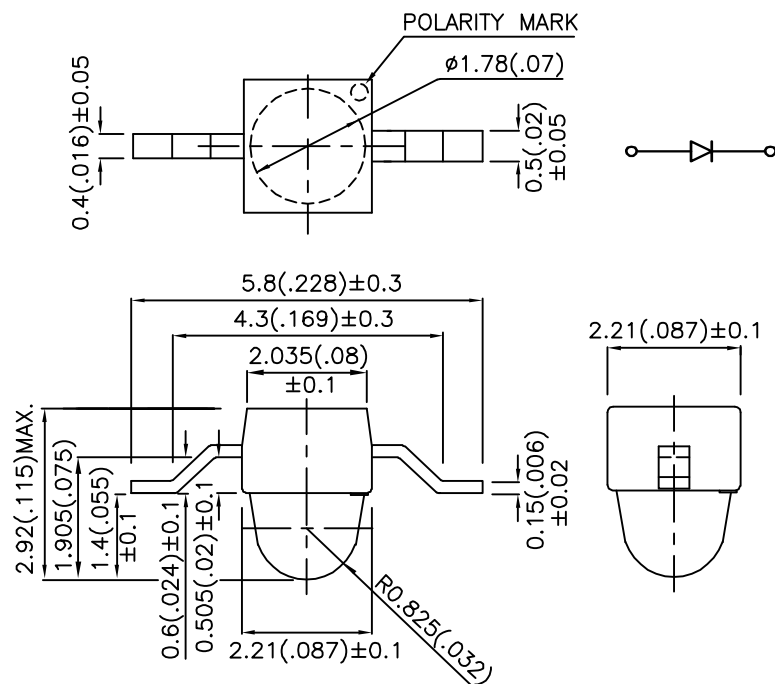
Static electricity and surge damage the LEDs.

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.

Selection Guide

Part No.	Dice	Lens Type	Iv (mcd) @ 20mA		Viewing Angle
			Min.	Typ.	2 θ 1/2
AM27MBCK09	BLUE (GaN)	WATER CLEAR	10	30	20°

Note:

1. θ 1/2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.

Electrical / Optical Characteristics at TA=25°C

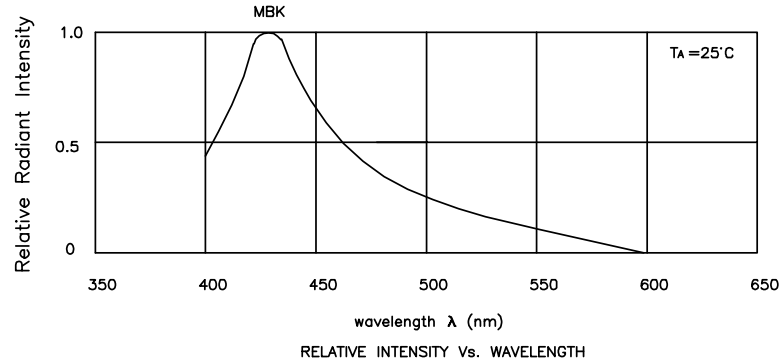
Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
λ_{peak}	Peak Wavelength	Blue	430		nm	IF=20mA
λ_D	Dominant Wavelength	Blue	466		nm	IF=20mA
$\Delta\lambda_{1/2}$	Spectral Line Half-width	Blue	60		nm	IF=20mA
C	Capacitance	Blue	100		pF	VF=0V;f=1MHz
VF	Forward Voltage	Blue	4.0	5.2	V	IF=20mA
IR	Reverse Current	Blue		10	uA	VR = 5V

Absolute Maximum Ratings at TA=25°C

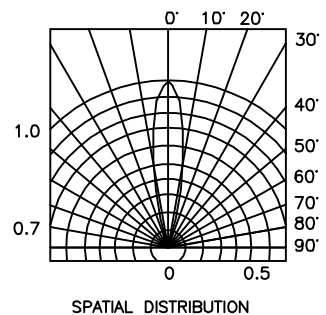
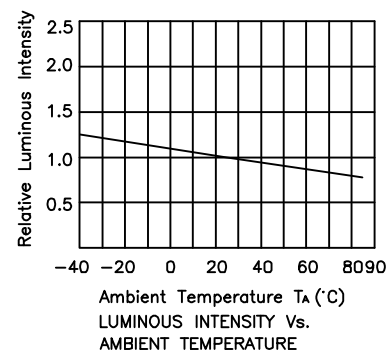
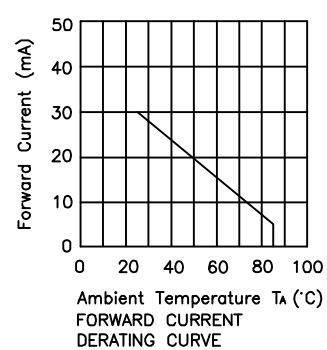
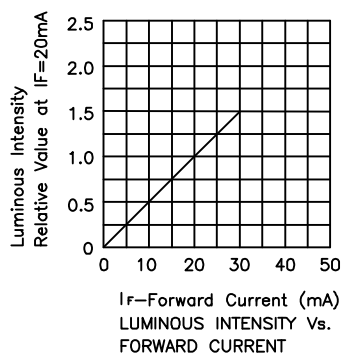
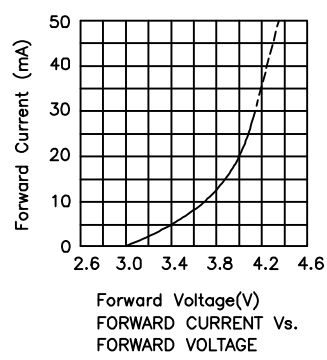
Parameter	Blue	Units
Power dissipation	105	mW
DC Forward Current	30	mA
Peak Forward Current [1]	150	mA
Reverse Voltage	5	V
Operating/Storage Temperature	-40°C To +85°C	

Notes:

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

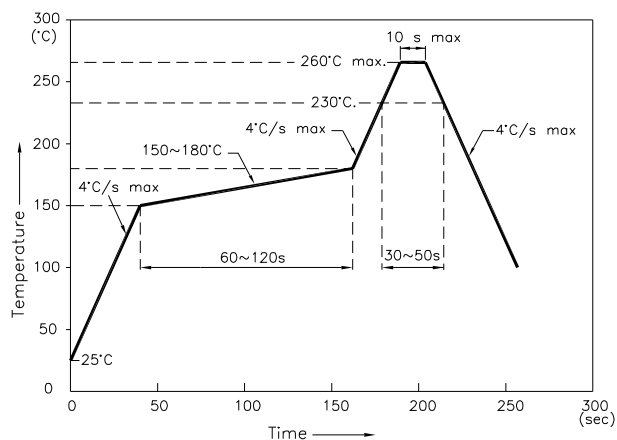


Blue AM27MBCK09



AM27MBCK09

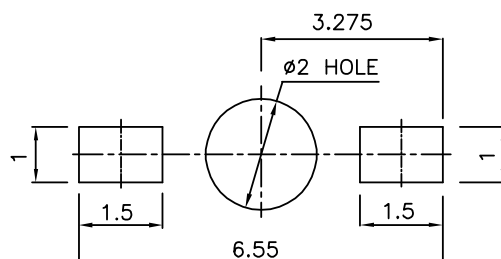
Reflow Soldering Profile For Lead-free SMT Process.



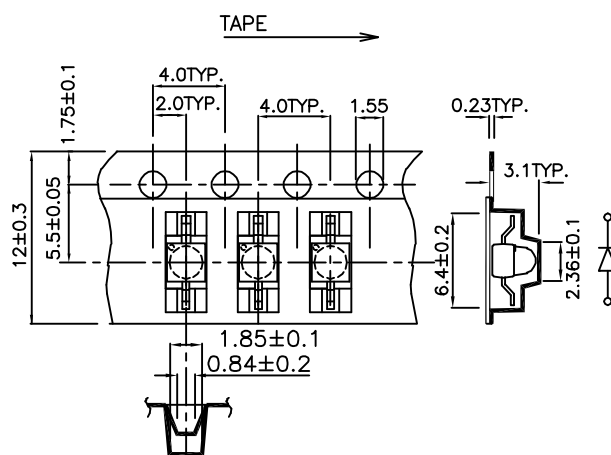
NOTES:

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.

Recommended Soldering Pattern (Units : mm)



Tape Specifications (Units : mm)



Remarks:

If there is sorting requirement (eg. forward voltage, luminous intensity or wavelength), the condition as follows:

1. Wavelength: $\pm 1\text{nm}$ (Test condition is based on the sorting standard).
2. Luminous intensity: $\pm 15\%$ (Test condition is based on the sorting standard).
3. Forward voltage: $\pm 0.1\text{V}$ (Test condition is based on the sorting standard).