



ATTENTION
OBSERVE
PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
DISCHARGE
SENSITIVE

P/N: KCSA02-109

BLUE

Features

- 0.2INCH DIGIT HEIGHT.
- LOW CURRENT OPERATION.
- EXCELLENT CHARACTER APPEARANCE.
- I.C. COMPATIBLE
- MECHANICALLY RUGGED.
- GRAY FACE,WHITE SEGMENT.
- PACKAGE : 650PCS / REEL.
- MOISTURE SENSITIVITY LEVEL : LEVEL 4.
- RoHS COMPLIANT.

Description

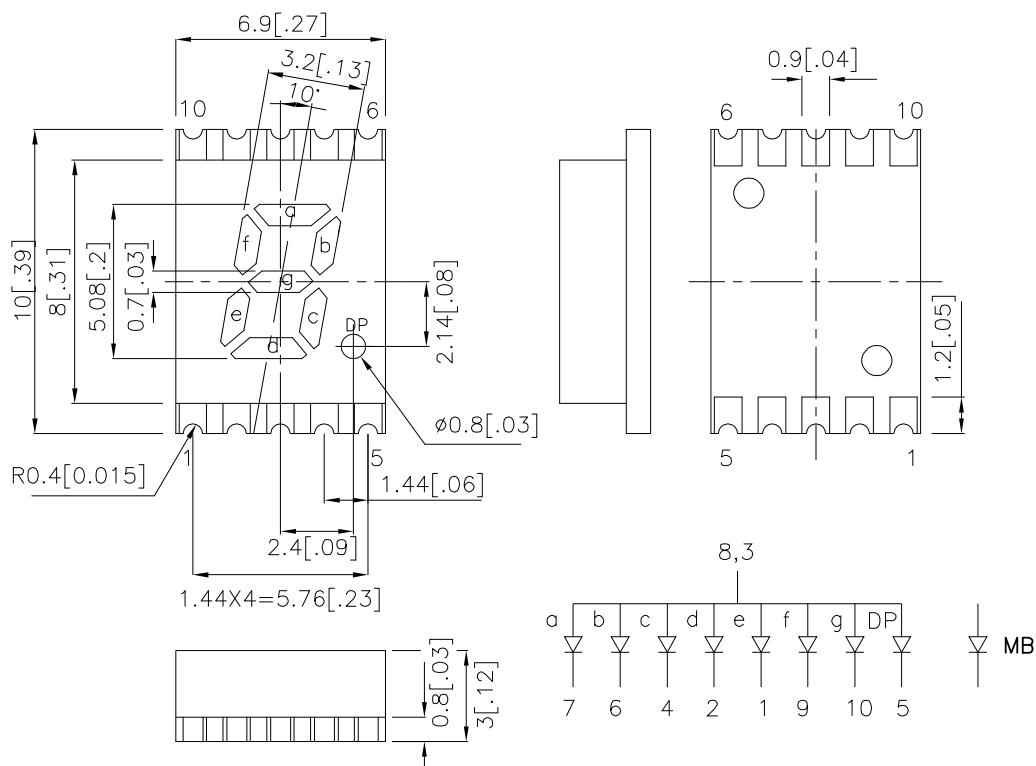
The Blue source color devices are made with GaN on SiC Light Emitting Diode.

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 & Internal Circuit Diagram



Notes:

1. All dimensions are in millimeters (inches), Tolerance is $\pm 0.25(0.01")$ unless otherwise noted.
2. Specifications are subject to change without notice.
3. The gap between the reflector and PCB shall not exceed 0.25mm.

Selection Guide

Part No.	Dice	Lens Type	Iv (ucd) [1] @ 10mA		Description
			Min.	Typ.	
KCSA02-109	BLUE (GaN)	WHITE DIFFUSED	800	3700	Common Anode, Rt. Hand Decimal.

Note:
1. Luminous Intensity / Luminous Flux: +/-15%.

Electrical / Optical Characteristics at TA=25°C

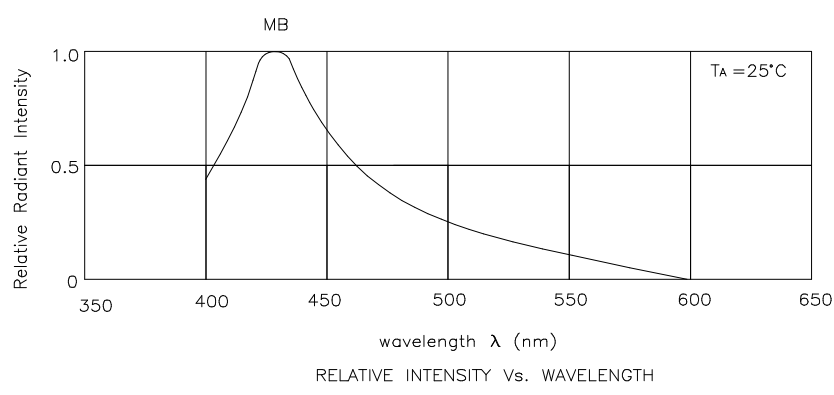
Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
λpeak	Peak Wavelength	Blue	430		nm	IF=20mA
λD [1]	Dominant Wavelength	Blue	466		nm	IF=20mA
Δλ1/2	Spectral Line Half-width	Blue	60		nm	IF=20mA
C	Capacitance	Blue	100		pF	VF=0V;f=1MHz
VF [2]	Forward Voltage	Blue	3.8	4.5	V	IF=20mA
IR	Reverse Current	Blue		10	uA	VR = 5V

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

Absolute Maximum Ratings at TA=25°C

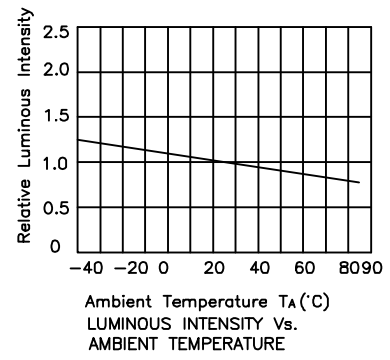
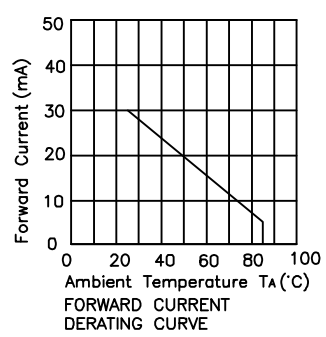
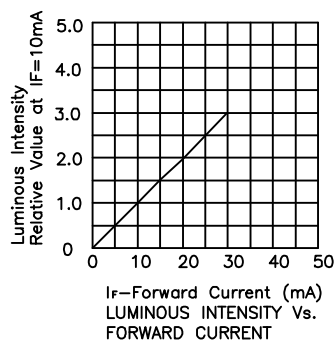
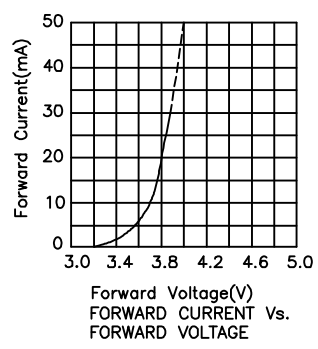
Parameter	Blue	Units
Power dissipation	135	mW
DC Forward Current	30	mA
Peak Forward Current [1]	150	mA
Reverse Voltage	5	V
Operating/Storage Temperature	-40°C To +85°C	

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



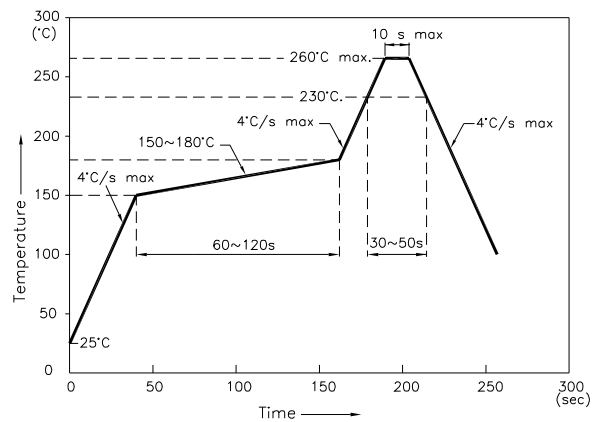
Blue

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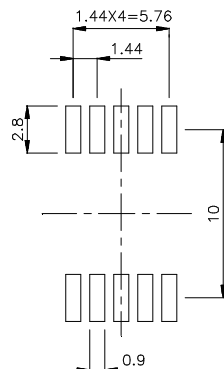
Reflow Soldering Profile For Lead-free SMT Process.



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)



Tape Specifications (Units : mm)

