

### PRELIMINARY SPEC

Part Number: KCSA03-138

GREEN



**ATTENTION**  
OBSERVE PRECAUTIONS  
FOR HANDLING  
ELECTROSTATIC  
DISCHARGE  
SENSITIVE  
DEVICES

### Features

- 0.3 INCH DIGIT HEIGHT.
- LOW CURRENT OPERATION.
- EXCELLENT CHARACTER APPEARANCE.
- I.C. COMPATIBLE.
- MECHANICALLY RUGGED.
- GRAY FACE, WHITE SEGMENT.
- PACKAGE : 550PCS / REEL.
- MOISTURE SENSITIVITY LEVEL : LEVEL 4.
- RoHS COMPLIANT.

### Description

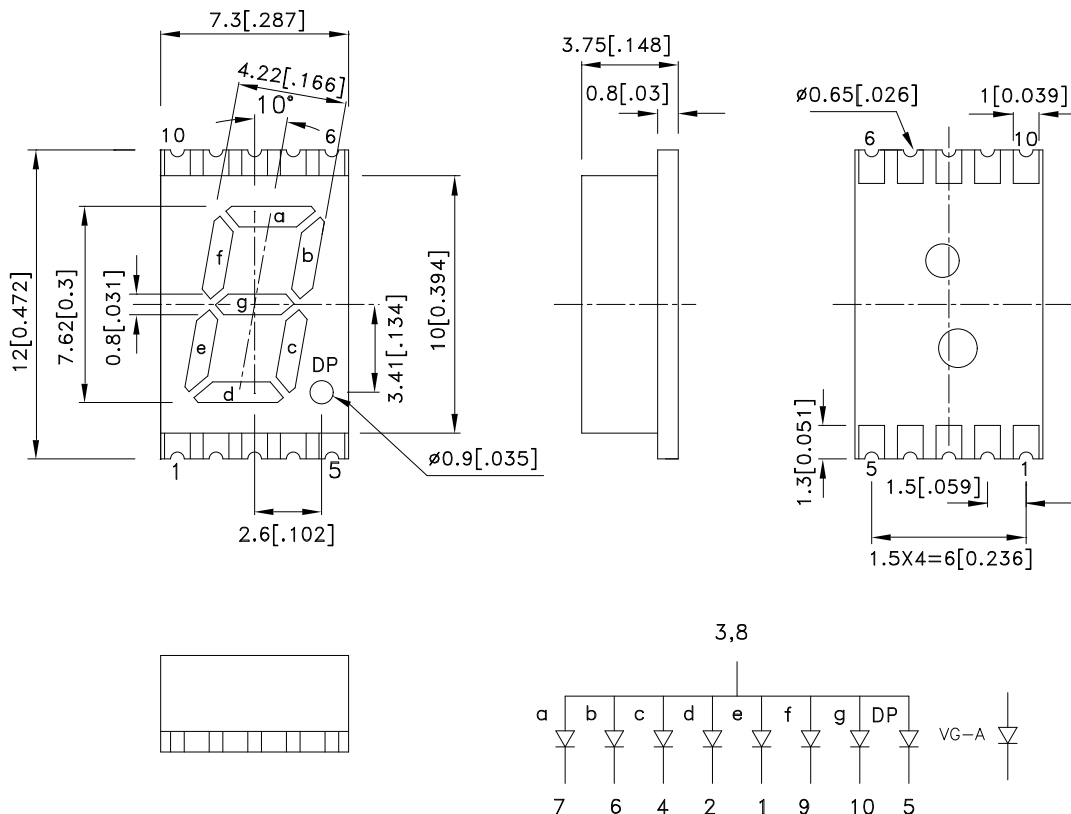
The Green source color devices are made with InGaN on G-SiC Light Emitting Diode.

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.	
KCSA03-138	GREEN (InGaN)	WHITE DIFFUSED	18000	54000	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
$\lambda_{peak}$	Peak Wavelength	Green	520		nm	I <sub>F</sub> =20mA
$\lambda_D$ [1]	Dominant Wavelength	Green	525		nm	I <sub>F</sub> =20mA
$\Delta\lambda_{1/2}$	Spectral Line Half-width	Green	35		nm	I <sub>F</sub> =20mA
C	Capacitance	Green	100		pF	V <sub>F</sub> =0V;f=1MHz
V <sub>F</sub> [2]	Forward Voltage	Green	3.2	4.0	V	I <sub>F</sub> =20mA
I <sub>R</sub>	Reverse Current	Green		10	uA	V <sub>R</sub> =5V

Notes:

1. Wavelength: +/-1nm.

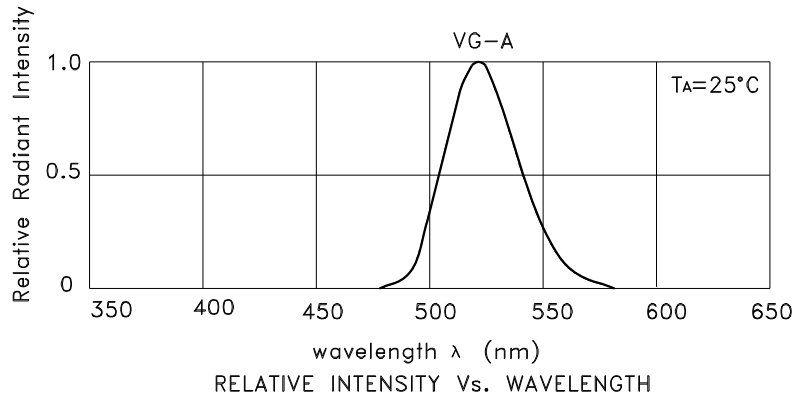
2. Forward Voltage: +/-0.1V.

## Absolute Maximum Ratings at TA=25°C

Parameter	Green	Units
Power dissipation	120	mW
DC Forward Current	30	mA
Peak Forward Current [1]	100	mA
Reverse Voltage	5	V
Operating / Storage Temperature	-40°C To +85°C	

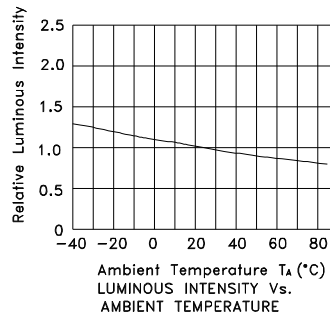
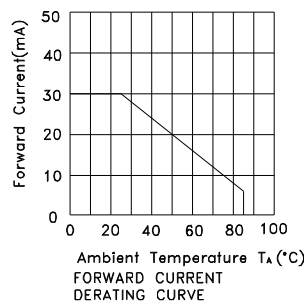
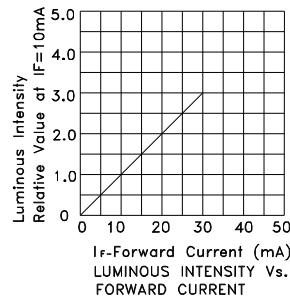
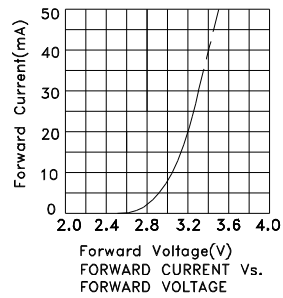
Note:

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



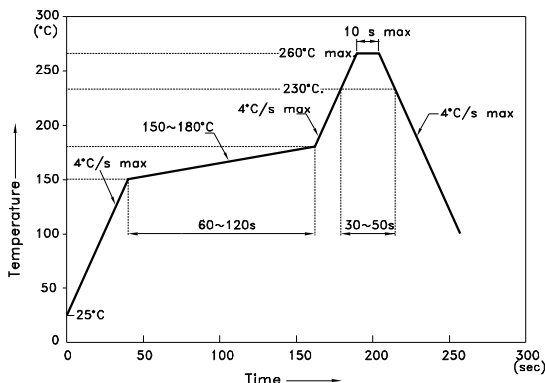
Green

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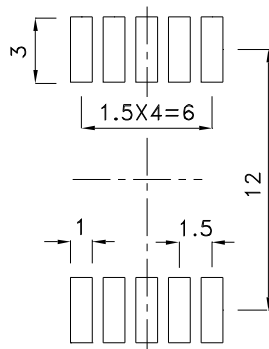
Reflow Soldering Profile For Lead-free SMT Process.



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; Tolerance: ± 0.15)



**Tape Specifications**  
(Units : mm)

