

# AVA TECHNOLOGY CO.

## Technical Specification

www.DataSheet4U.com

**Model: ND39G1**

**Name: .39"Seven-Segment Display**

**REV: A**

**Date: 2006-1-6**

**AVA TECHNOLOGY CO.  
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## DESCRIPTION••

THE GREEN SOURCE COLOR DEVICES  
ARE MADE WITH InGaAlP ON GaAs  
SUBSTRATE LIGHT EMITTING DIODE

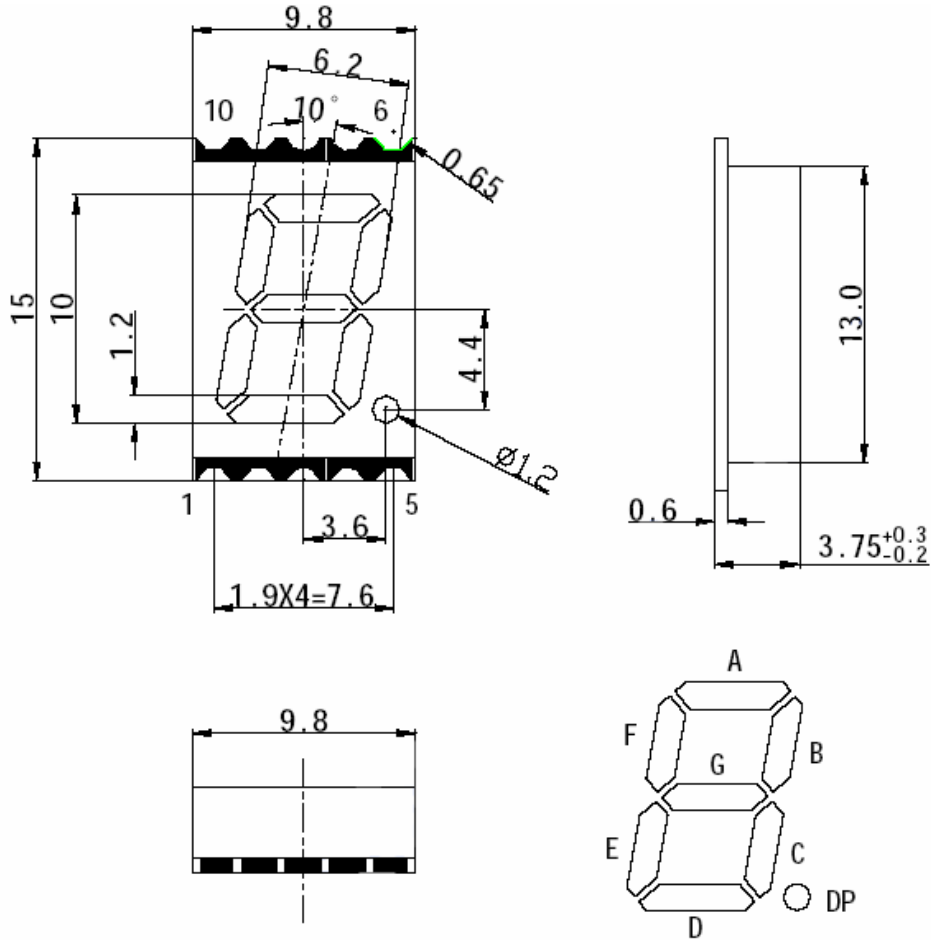


## FEATURES

- \* 0.39 inch (10.0 mm) DIGIT HEIGHT
- \* CONTINUOUS UNIFORM SEGMENTS
- \* LOW POWER REQUIREMENT
- \* EXCELLENT CHARACTERS APPEARANCE
- \* HIGH BRIGHTNESS & HIGH CONTRAST
- \* WIDE VIEWING ANGLE
- \* SOLID STATE RELIABILITY
- \* CATEGORIZED FOR LUMINOUS INTENSITY
- \* THE CHARACTERISTIC OF ENCAPXULATION  
METHOD IS USE THE CHIP ON BORAD OR SMT

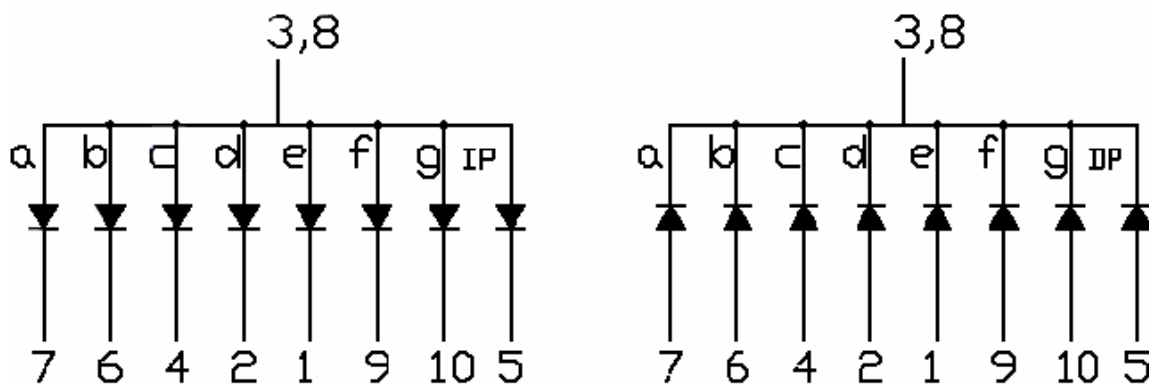
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## PACKAGE DIMENSIONS



NOTES: All dimensions are in millimeters. Tolerances are  $\pm 0.25$ -mm (0.01") unless otherwise noted.

### INTERNAL CIRCUIT DIAGRAM



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## Selection Guide

Part No.	Dice	Lens Type	Iv (mcd) @10mA		Description
			Min.	Typ.	
ND39G1AYG-S	GREEN (InGaAlP)	WHITE DIFFUSED	11.08	12.04	Common Anode
ND39G1CYG-S	GREEN (InGaAlP)	WHITE DIFFUSED	11.08	12.04	Common Cathode

## ABSOLUTE MAXIMUM RATING AT Ta = 25oC

PARAMETER	MAXIMUM RATING	UNIT
Power Dissipation Per Segment	105	mW
DC Froward Current	25	mA
Peak Froward Current	140	mA
Reverse Voltage Per Segment	5	V
Operating Temperature Range	-40 <sup>0</sup> C to +85 <sup>0</sup> C	

## ELECTRICAL / OPTICAL CHARACTERISTICS AT Ta = 25°C

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
Peak Emission Wavelength	$\lambda_p$		573		nm	I <sub>F</sub> =20mA
Spectral Line Half-Width	$\Delta\lambda$		30		nm	I <sub>F</sub> =20mA
Dominant Wavelength	$\lambda_d$		570		nm	I <sub>F</sub> =20mA
Forward Voltage Per Segment	V <sub>F</sub>		2.15	2.5	V	I <sub>F</sub> =20mA
Reverse Current Per Segment	I <sub>R</sub>			10	$\mu$ A	V <sub>R</sub> =5V

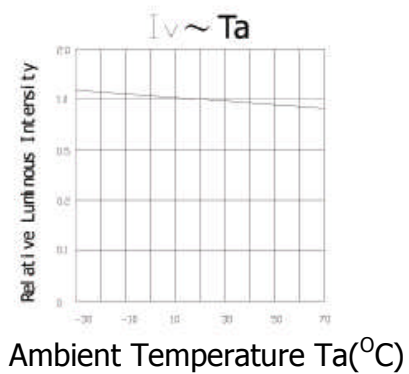
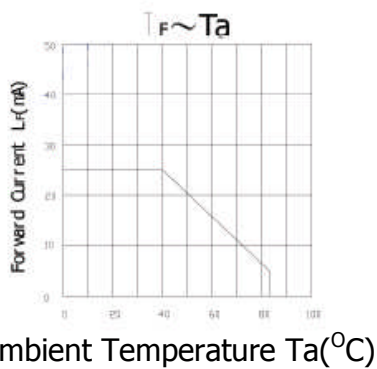
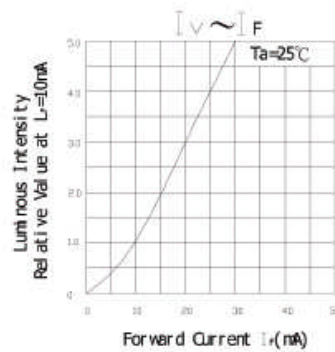
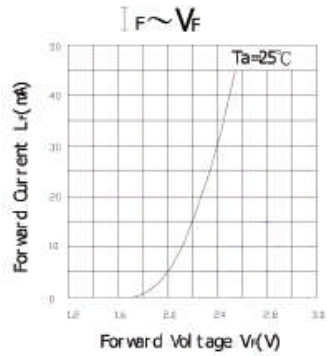
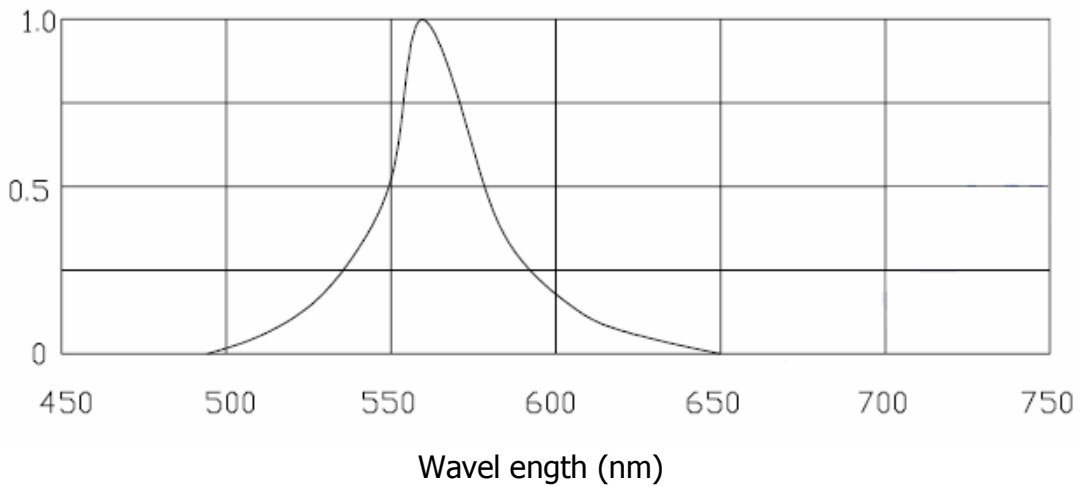
Note: Luminous intensity is measured with a light sensor and filter combination that approximates the CIE (Commision Internationale De L'Eclairage) eye-response curve.

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## TYPICAL ELECTRICAL / OPTICAL CHARACTERISTIC CURVES

(25°C Ambient Temperature Unless Otherwise Noted)

### RELATIVE INTENSITY vs WAVELENGTH



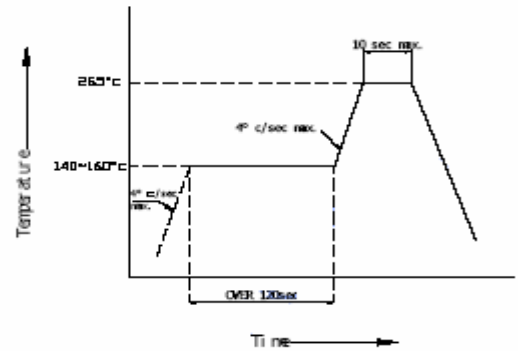
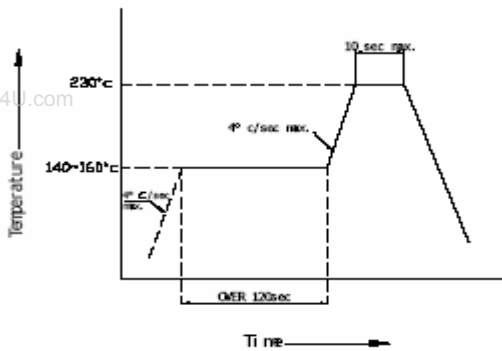
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## THE CHIP ON BOARD OR SMT Reflow Soldering Instructions

Number of reflow process shall be 2 times or less and cooling

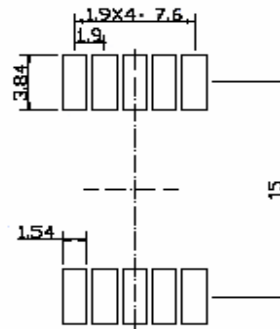
Process to normal temperature is required between first and

Second soldering process.



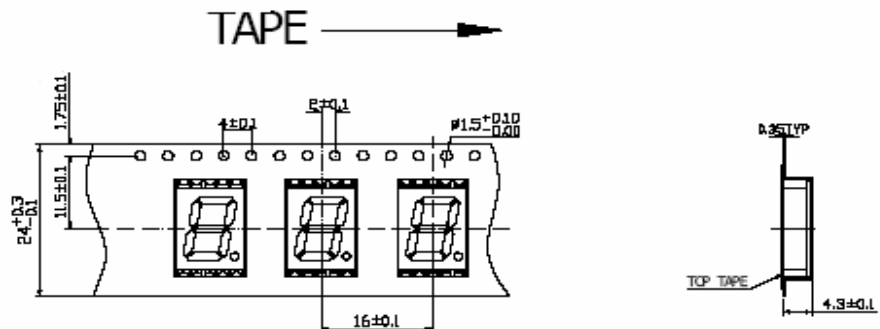
### Recommended Soldering Pattern

(Units:mm)



### Tape Specifications

(Units:mm)



### Remarks:

If special sorting is required (e.g. binning based on forward voltage, luminous intensity, or wavelength), the typical accuracy of the sorting process is as follow:

1. Wavelength: +/-1nm
2. Luminous Intensity: +/-15%
3. Forward Voltage: +/-0.1V

Note: Accuracy may depend on the sorting parameters.