

AVA TECHNOLOGY CO.

Technical Specification

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Model: ND39R1

Name: .39"Seven-Segment Display

REV: A

Date: 2006-1-6

AVA TECHNOLOGY CO.

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DESCRIPTION

THE SUPER BRIGHT RED SOURCE COLOR DEVICES
ARE MADE WITH GALLIUM ALUMINUM ARSENIDE
RED LIGHT EMITTING DIODE

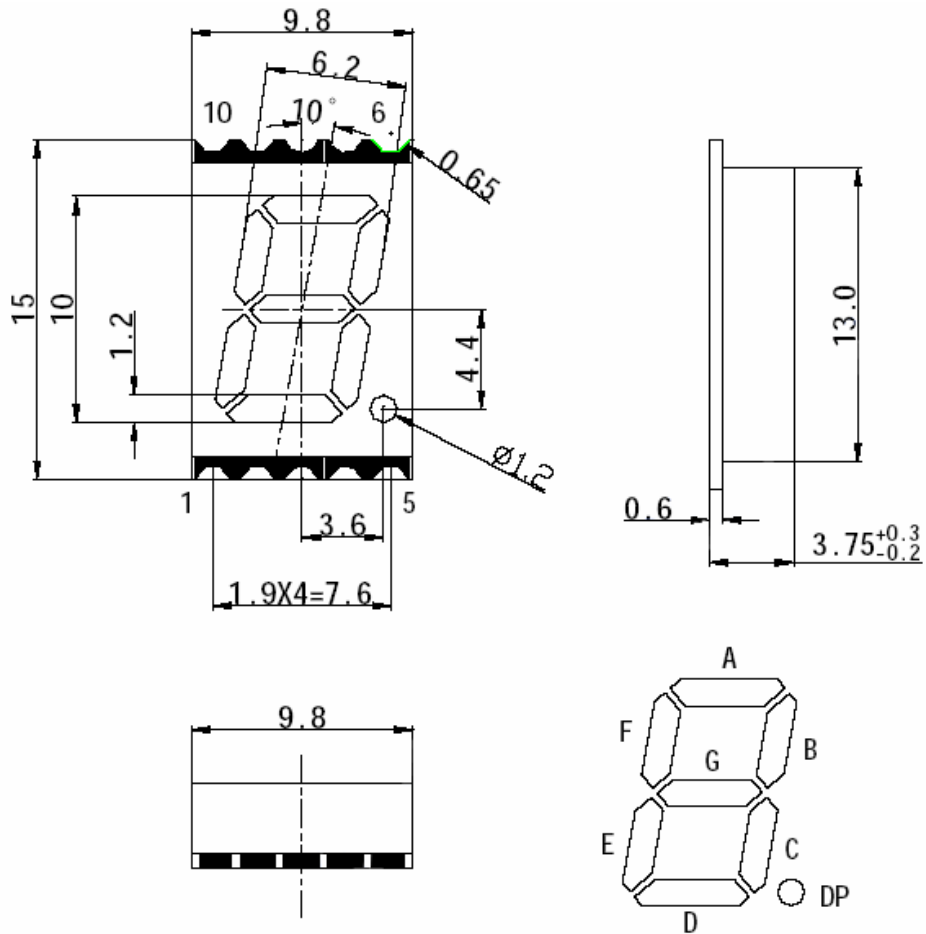


FEATURES

- * 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 ENCAPSULATION
METHOD IS USE THE CHIP ON BORAD OR SMT

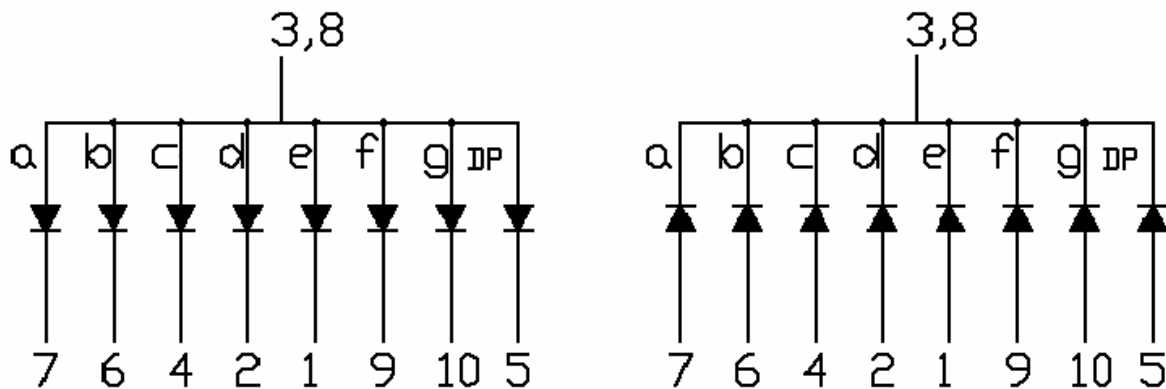
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PACKAGE DIMENSIONS



NOTES: All dimensions are in millimeters. Tolerances are ± 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.	
ND39R1ASR-S	RED (GaAlAs)	WHITE DIFFUSED	16.35	17.46	Common Anode
ND39R1CSR-S	RED (GaAlAs)	WHITE DIFFUSED	16.35	17.46	Common Cathode

ABSOLUTE MAXIMUM RATING AT Ta = 25°C

PARAMETER	MAXIMUM RATING	UNIT
Power Dissipation Per Segment	100	mW
DC Forward Current	30	mA
Peak Forward Current	155	mA
Reverse Voltage Per Segment	5	V
Operating Temperature Range	-40°C to +85°C	

ELECTRICAL / OPTICAL CHARACTERISTICS AT Ta = 25°C

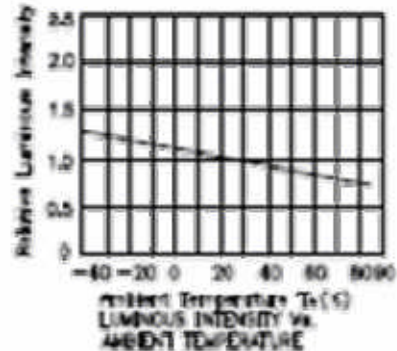
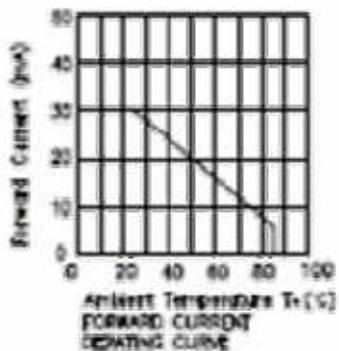
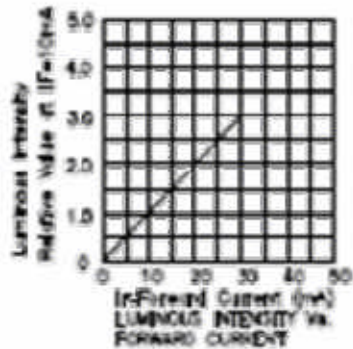
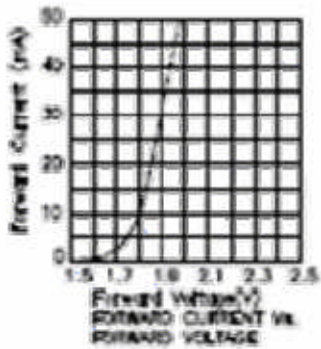
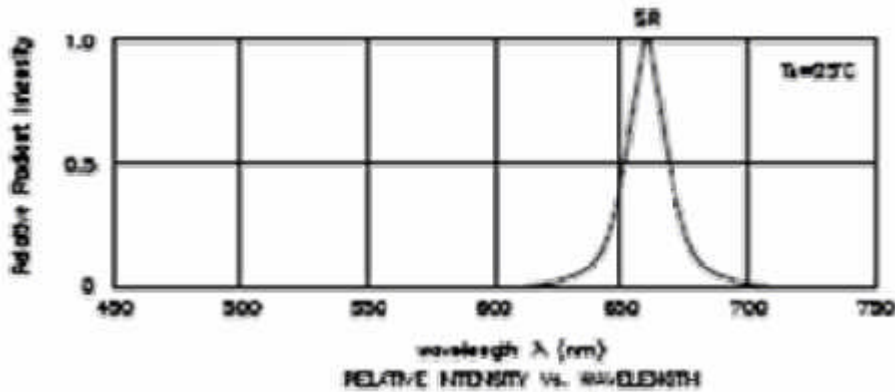
PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
Peak Emission Wavelength	λ_p		645		nm	I _F =20mA
Spectral Line Half-Width	$\Delta\lambda$		20		nm	I _F =20mA
Dominant Wavelength	λ_d		643		nm	I _F =20mA
Forward Voltage Per Segment	V _F		1.85	2.5	V	I _F =20mA
Reverse Current Per Segment	I _R			10	μA	V _R =5V

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

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TYPICAL ELECTRICAL / OPTICAL CHARACTERISTIC CURVES

(25°C Ambient Temperature Unless Otherwise Noted)



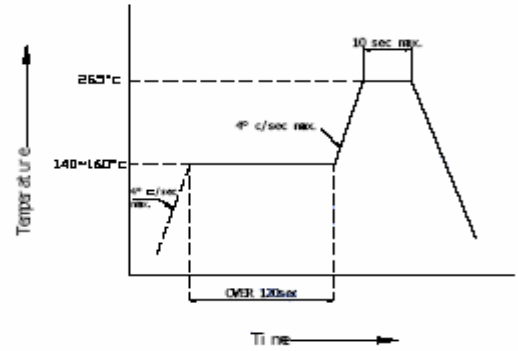
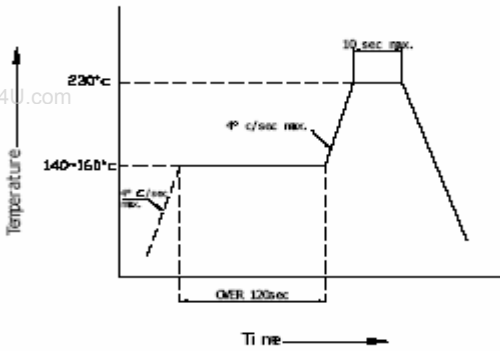
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THE CHIP ON BOARD OR SMT Reflow Soldering Instructions

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

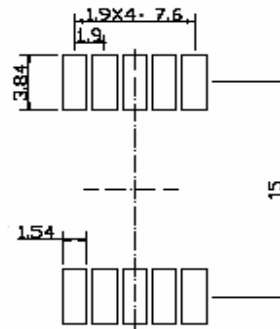
Process to normal temperature is required between first and

Second soldering process.



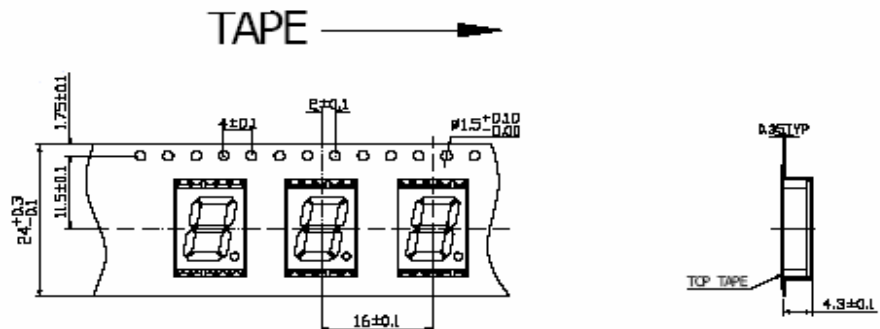
Recommended Soldering Pattern

(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.