

## Seven Segment Display Data Sheet

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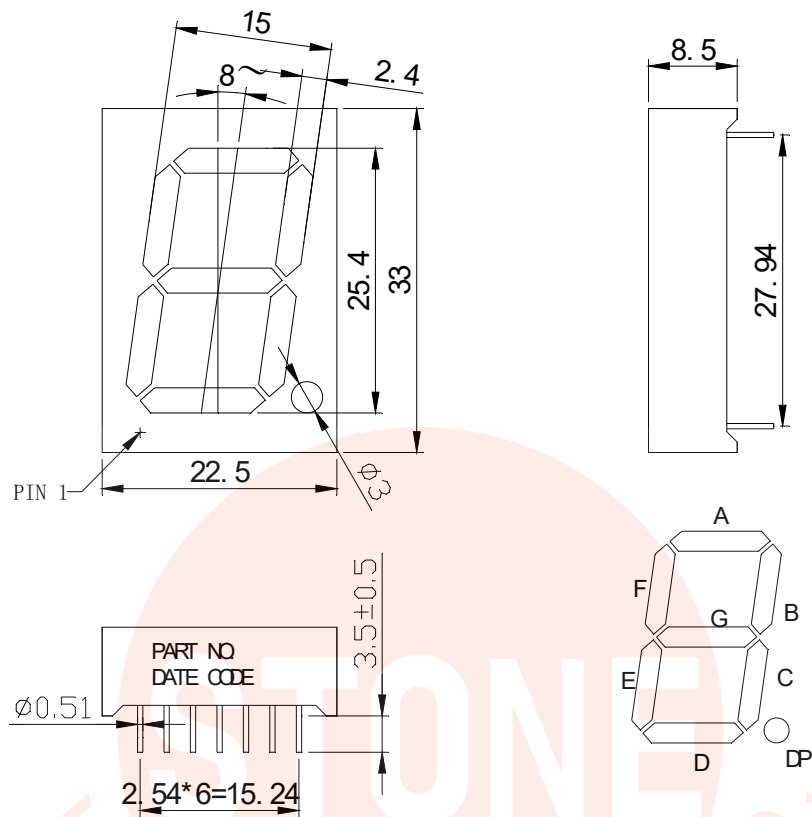
### Description

This YDS-101017AR-N is a 1.0 inch (25.4 mm) digit height single digit display . This device uses AllnGaP Red chips, which are made from AllnGaP on a non-transparent GaAs substrate, and has a black face and white segments.

### Features

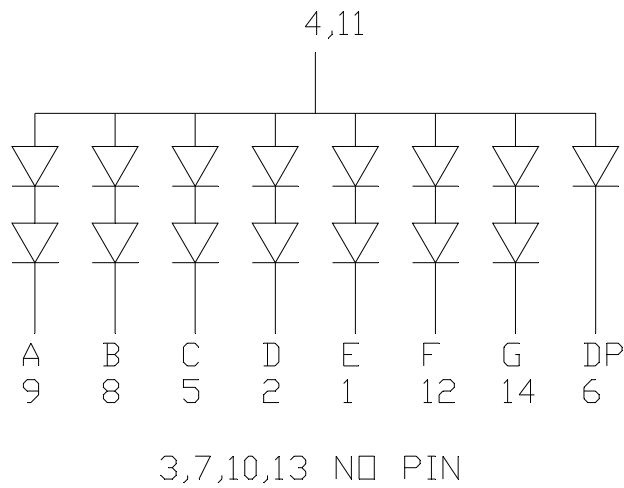
- 1.0 inch (25.4 mm) digit height
- Continuous uniform segments
- Low power requirement
- Excellent characters appearance
- High brightness & high contrast
- Wide viewing angle
- Solid state reliability
- Categorized for luminous intensity

### Package Dimensions



1. All dimensions are in millimeters. Tolerances are 0.25 mm (0.01") unless otherwise noted.
2. Pin tip's shift tolerance is  $\pm 0.4$  mm

### Internal Circuit Diagrams



### Absolute Maximum Rating (Ta = 25°C)

Parameter	Max.	Unit
Power Dissipation Per Segment	70	mW
Peak Forward Current Per Segment ( Frequency 1Khz, 15% duty cycle)	90	mA
Continuous Forward Current Per Segment	25	mA
Reverse Voltage Per Segment	5	V
Operating Temperature Range	-35°C to +85°C	
Storage Temperature Range	-40°C to +100°C	
Soldering Conditions: 1/16 inch below seating plane for 3 seconds at 260°C		

This product should be operated in forward bias. If a reverse voltage is continuously applied to the product, such operation can cause migration resulting in LED damage.

### Electrical / Optical Characteristics (Ta = 25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Luminous Intensity	Iv	8.6	13.7		mcd	IF=10mA
Peak Emission Wavelength	$\lambda_p$		650		nm	IF=20mA
Spectral Line Half-Width	$\Delta\lambda$		20		nm	IF=20mA
Dominant Wavelength	$\lambda_d$		639		nm	IF=20mA
Forward Voltage Per Segment	VF		4.2	5.2	V	IF=20mA
	VF(DP)		2.1	2.6	V	IF=20mA
Reverse Current Per Segment	IR			10	$\mu$ A	VR=5V
Luminous Intensity Matching Ratio	Iv-m			2:1		IF=10mA

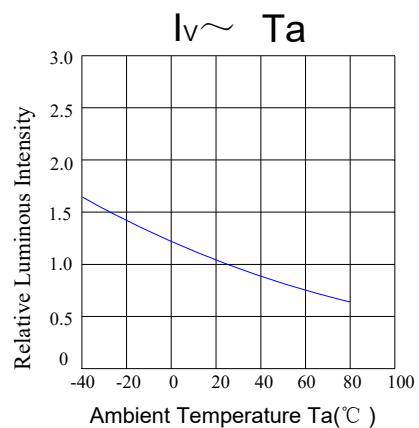
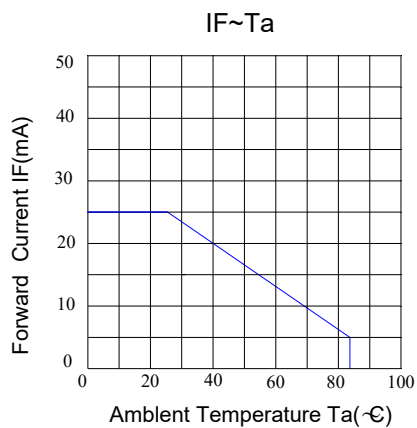
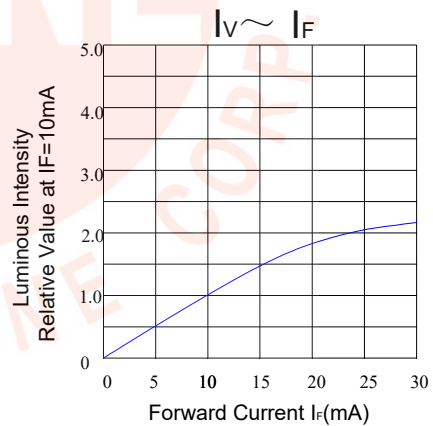
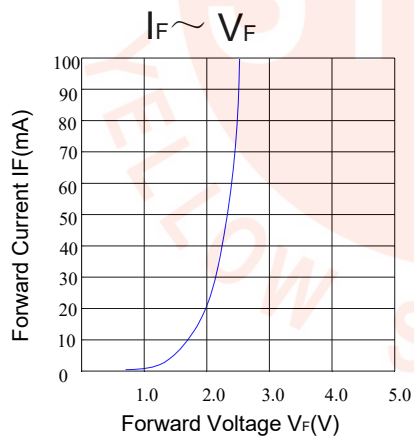
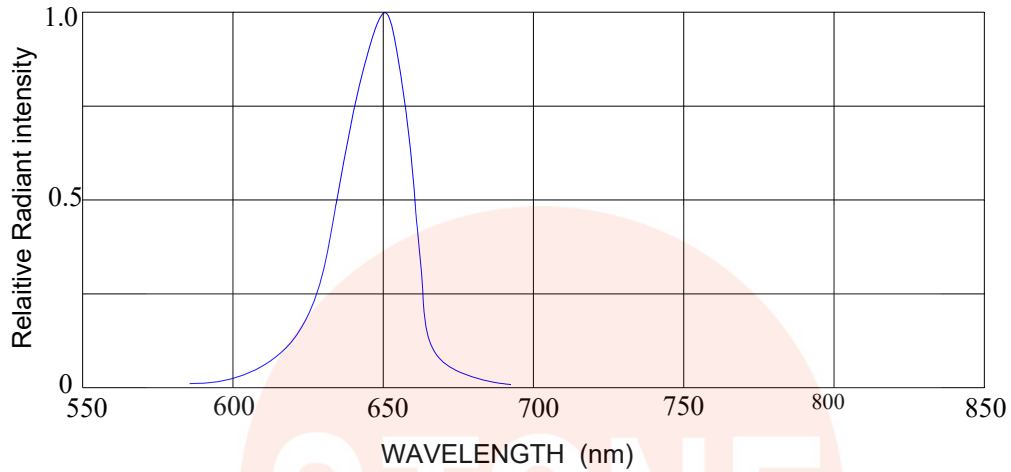
Note:1.Luminous intensity is measured with a light sensor and filter combination that approximates the CIE (Commision Internationale De L'Eclairage) eye-response curve.

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

## Typical Electrical / Optical Characteristic Curves

(25°C Ambient Temperature Unless Otherwise Noted)

RELATIVE INTENSITY VS WAVELENGTH





## Package Flow

