

Seven Segment Display Data Sheet

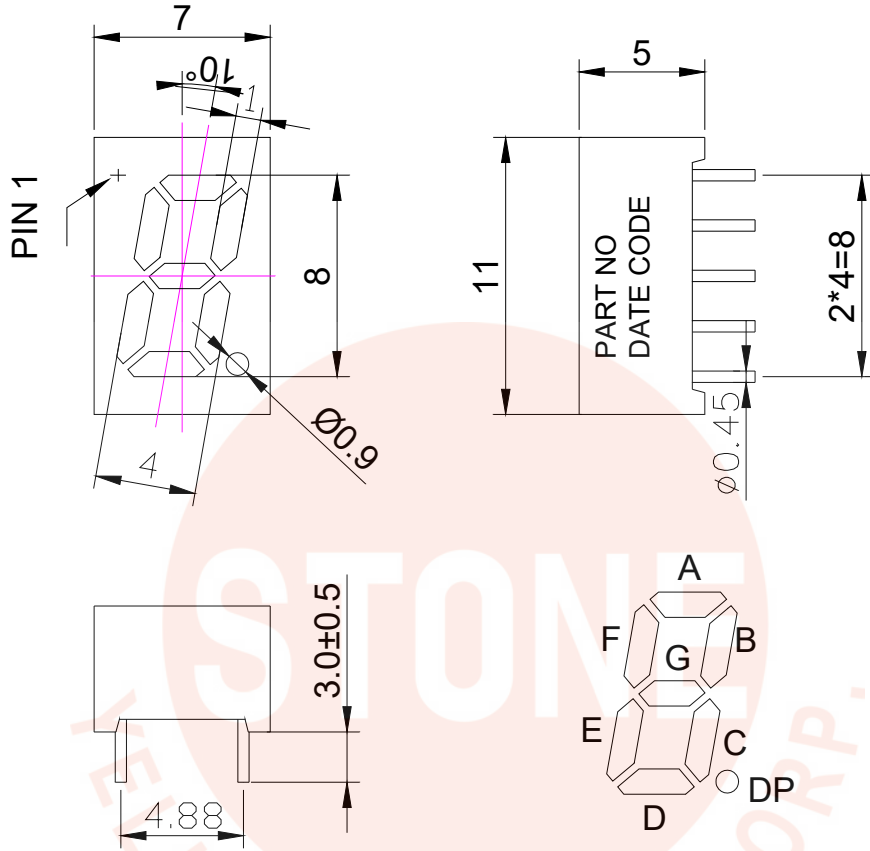
Description

This YDS-31214AR-N is a 0.32 inch (8.0mm) digit height single digit seven-segment display. This device uses AllnGaP Red LED chips (AllnGaP epi on GaAs substrate), and has a black face and Red segments.

Features

- 0.32-inch (8.0 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

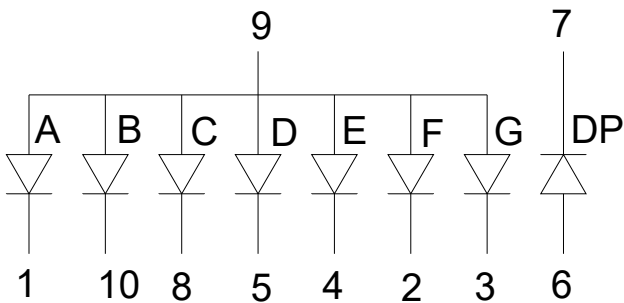
Package Dimensions



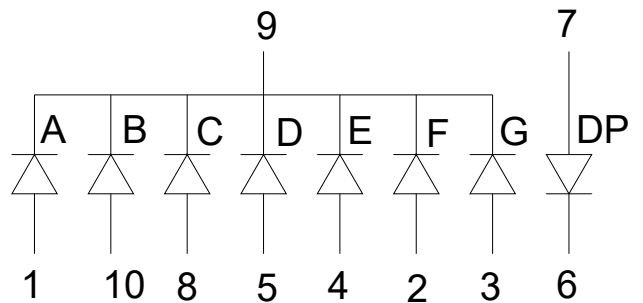
NOTES:

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

Internal Circuit Diagram



Common Anode(YDS-31214AR-N)



Common Cathode(YDS-31214CR-N)

Absolute Maximum Rating (Ta = 25°C)

Parameter	Max.	Unit
Power Dissipation Per Segment	75	mW
Peak Forward Current Per Segment (Frequency 1Khz, 15% duty cycle)	90	mA
Continuous Forward Current Per Segment	30	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
Average Luminous Intensity	Iv	13.7	20		mcd	IF=10mA
Peak Emission Wavelength	λ_p		632		nm	IF=20mA
Spectral Line Half-Width	$\Delta \lambda$		20		nm	IF=20mA
Dominant Wavelength	λ_d		624		nm	IF=20mA
Forward Voltage Per Segment	VF		2.05	2.6	V	IF=20mA
Reverse Current Per Segment	IR			10	uA	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.

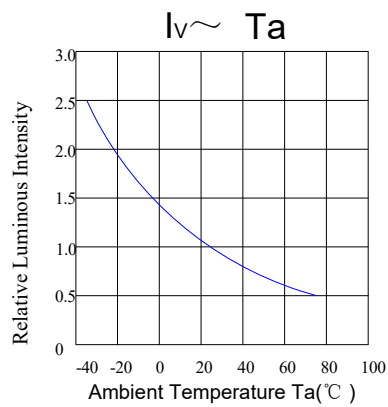
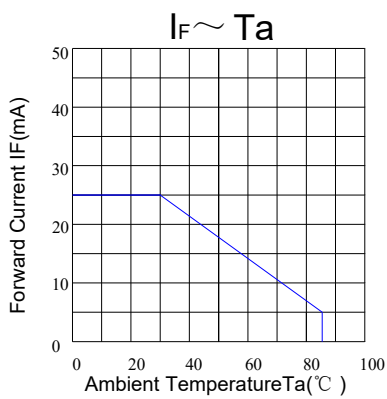
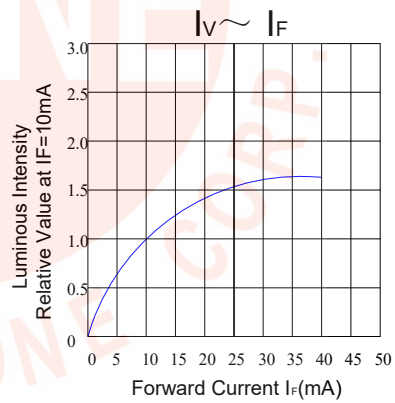
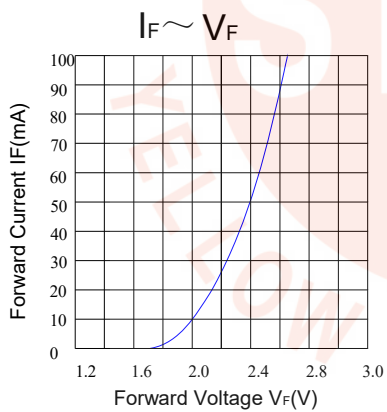
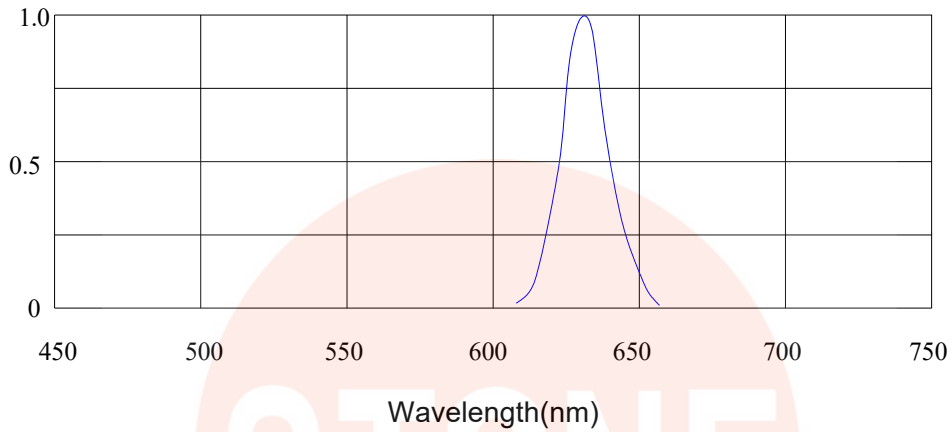
2.Wavelength: +/-1nm Luminous Intensity: +/-15% Forward Voltage: +/-0.1V

IV BIN code:10mA/mcd

GRADE	P	Q	R	S
RANGE	13.7~21.8	21.8~34.7	34.7~55.1	55.1~87.7

Typical Electrical / Optical Characteristic Curves
 (25°C Ambient Temperature Unless Otherwise Noted)

RELATIVE INTENSITY vs WAVELENGTH



Package Flow

