



Seven Segment Display Data Sheet

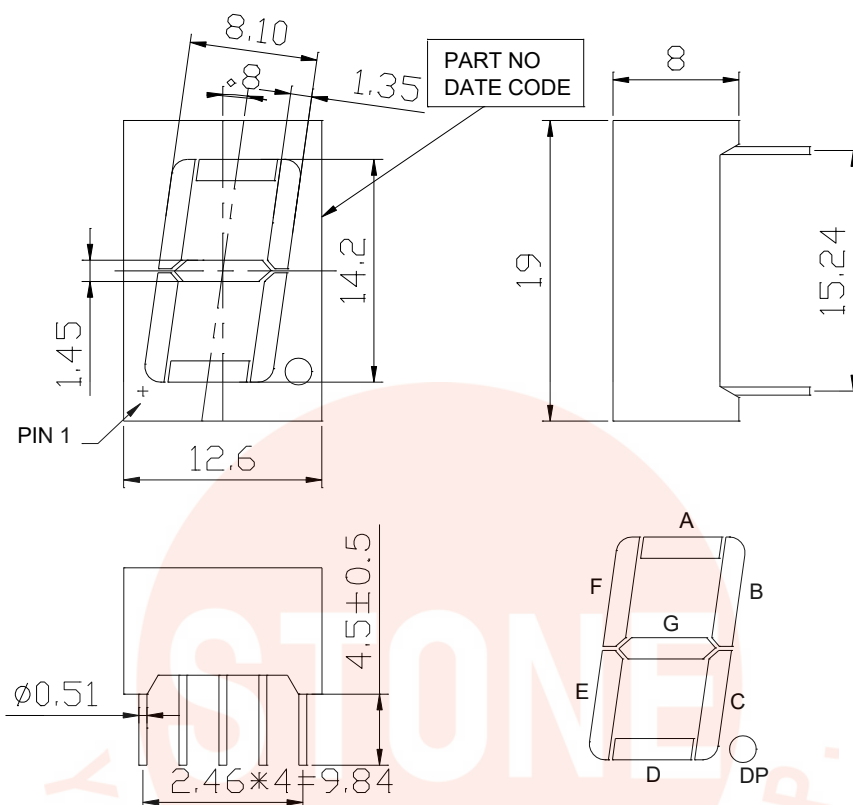
Description

This YDS-51640CR-N is a 0.56 inch (14.2mm) digit height single digit seven-segment display. This device uses Red LED chips, which are made from AlInGaP on a transparent GaAs substrate, and has a black face and white segments.

Features

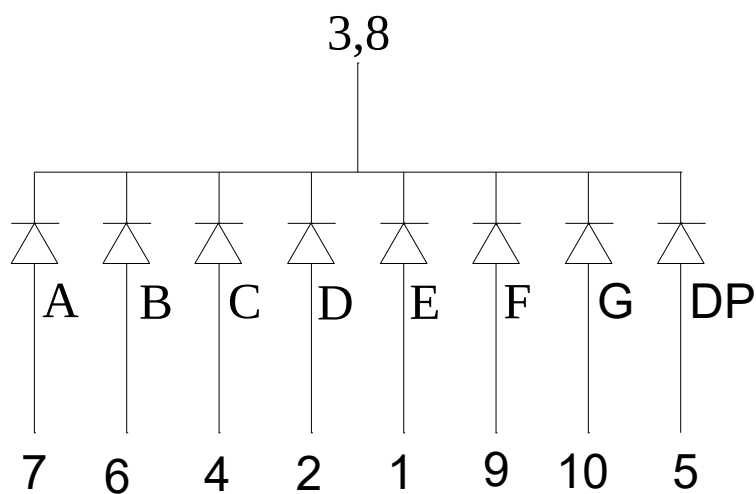
- 0.56-inch (14.2mm) digit height
- Continuous uniform segments
- Low power requirement
- Excellent characters appearance
- High brightness & high contrast
- Wide viewing angle
- Solid state reliability
- Categorized for luminous intensity

Package Dimensions



1. All dimensions are in millimeters. Tolerances are 0.25 mm (0.01") unless otherwise noted.

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, 10% 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	-35°C to +85°C	
Soldering onditions: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	2.1	5.4		mcd	IF=10mA
Peak Emission Wavelength	λp		650		nm	IF=20mA
Spectral Line Half-Width	Δλ		20		nm	IF=20mA
Dominant Wavelength	λd		639		nm	IF=20mA
Forward Voltage Per Segment	VF		2.1	2.6	V	IF=20mA
Reverse Current Per Segment	IR			10	μA	VR=5V
Luminous Intensity Matching Ratio	Iv-m			2:1		IF=10mA

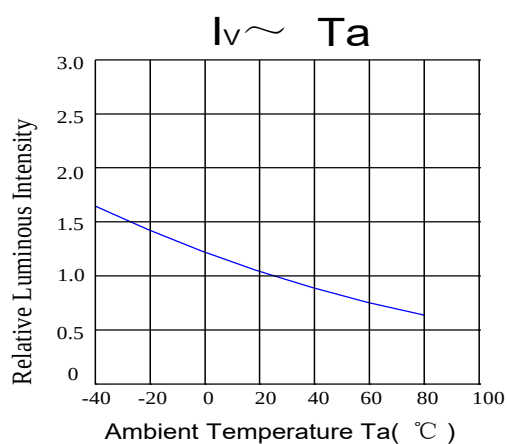
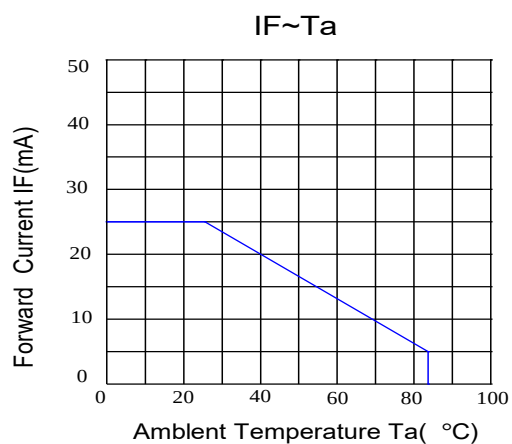
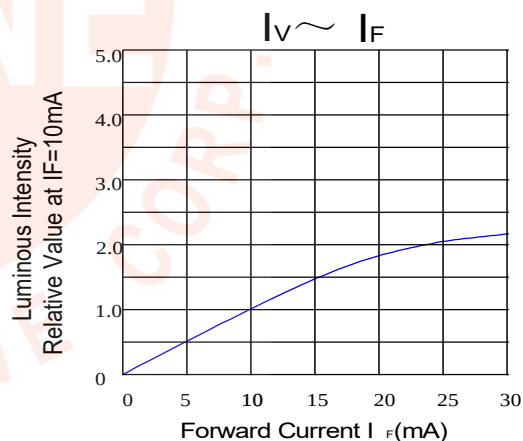
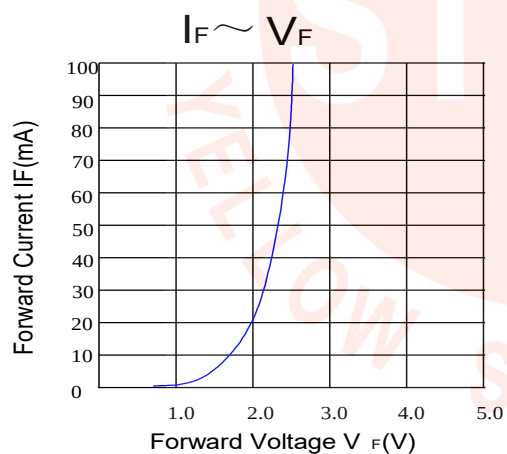
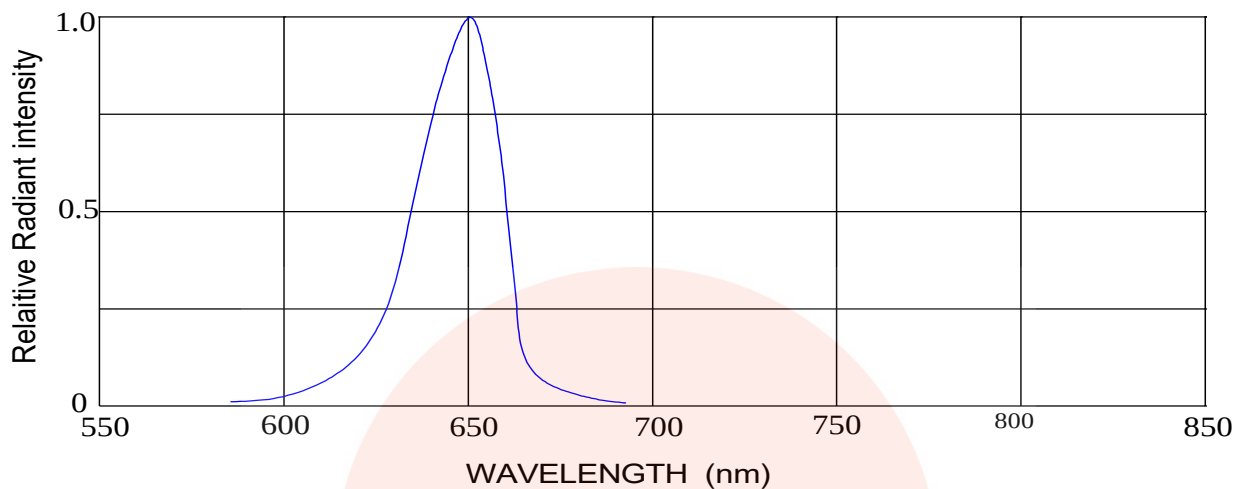
Note : 1.Luminous intensity is measured with a light sensor and filter combination that approximates the CIE (Commision Internationale De L'Eclairage) eye-response curve.

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

Typical Electrical / Optical Characteristic Curves

(25°C Ambient Temperature Unless Otherwise Noted)

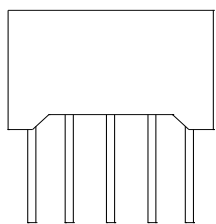
RELATIVE INTENSITY VS WAVELENGTH



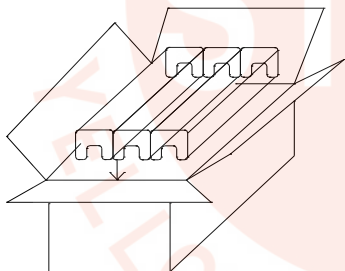


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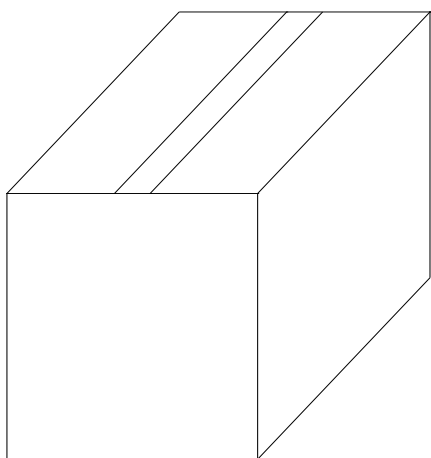
Package Flow



39PCS/TUBE



1248PCS/I-CARTON



4992PCS/O-CARTON