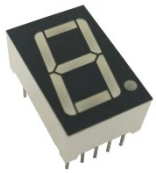
早安股份有限公司
YELLOW STONE CORP.

YDS-A56RBWK

0.56 inch (14.20mm), Deep Red LED Display

Single Digit 7-segment LED Display

Technical Data Sheet



Features

- High reliability
- Low power consumption
- Excellent characters appearance
- Evenly lighted segments
- Wide viewing angle
- Easy mounting on PCB or sockets
- I.C. compatible
- RoHS compliant

Descriptions

- The YDS-A56RBWK is a 0.56inch (14.20mm) digit height seven-segment LED display.
- The display provides excellent reliability in bright ambient light.
- The device is as either common anode or common cathode.
- The device is made with white diffused segments and black surface.

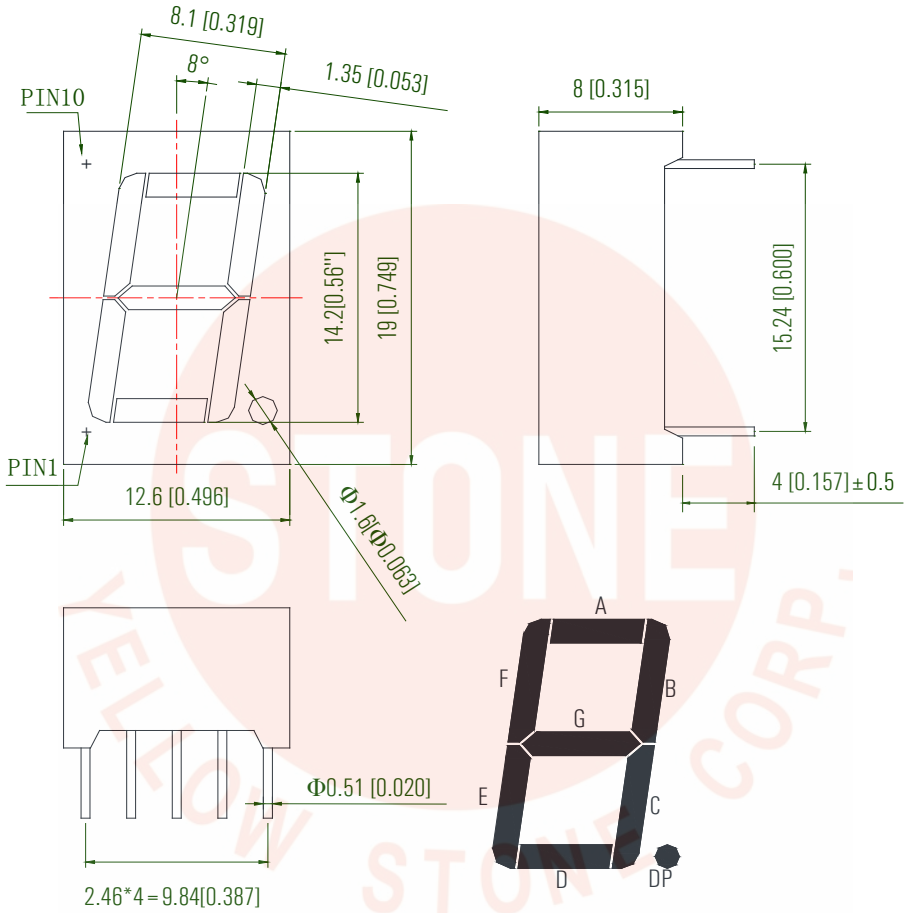
Applications

- Home and smart appliances
- Instrument panels
- Display time and digital combination
- Test and measurement equipment
- Control units

Device Selection Guide

Part No.	Emitting Color	Polarity
YDS-A56RBWK	Deep Red	Common Anode

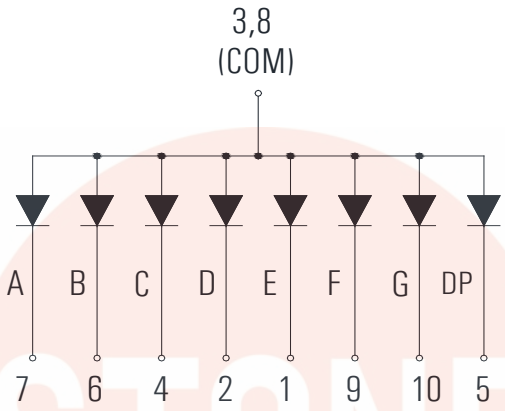
Package Dimension



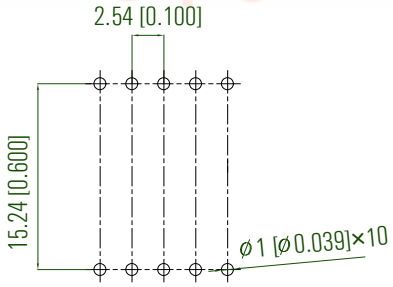
Notes:

1. *All dimensions are in millimeters (inches).*
2. *Tolerance is ± 0.25 mm (.010") unless otherwise noted.*
3. *The specifications, characteristics and technical data described in the datasheet are subject to change without prior notice.*

Internal Circuit Diagram:



Recommended PCB Layout:



Absolute Maximum Ratings at Ta=25℃

Parameters	Symbol	Max	Unit
Power Dissipation Per Segment	P_d	48	mW
Peak Forward Current Per Segment (1/10 Duty Cycle, 0.1ms Pulse Width)	I_{FP}	40	mA
Forward Current Per Segment	I_F	20	mA
Reverse Voltage Per Segment	V_R	5	V
Operating Temperature Range	T_{opr}	-40°C to +80°C	
Storage Temperature Range	T_{stg}	-40°C to +85°C	
Soldering Temperature	T_{sld}	260°C for 5 Seconds	

Electrical Optical Characteristics at Ta=25℃

Parameters	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Average Luminous Intensity	Iv	10.0	20.0	---	mcd	IF=10mA (Note a)
		20.0	40.0	---	mcd	IF=20mA (Note a)
Luminous Intensity Matching Ratio	I_{v-m}	---	---	2:1		IF=20mA
Peak Emission Wavelength	λp	---	645	---	nm	IF=20mA
Dominant Wavelength	λd	---	630	---	nm	IF=20mA (Note b)
Spectral Line Half-Width	Δλ	---	20	---	nm	IF=20mA
Forward Voltage Per Segment	V_F	---	2.0	2.4	V	IF=20mA
Reverse Current Per Segment	I_R	---	---	50	μA	VR=5V

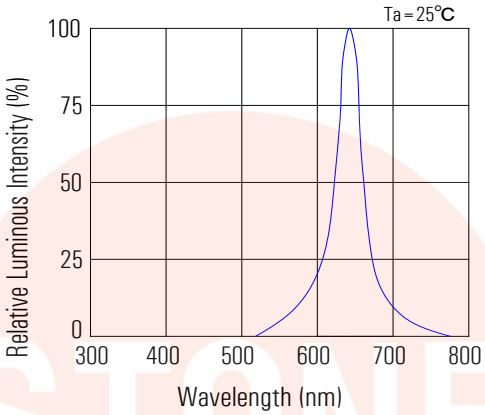
Notes:

a. Luminous intensity is measured with a light sensor and filter combination that approximates the CIE eye-response curve.

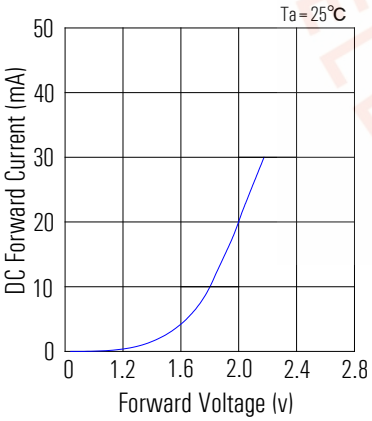
b. The dominant wavelength (λd) is derived from the CIE chromaticity diagram and represents the single wavelength which defines the color of the device.

Typical Electrical/Optical Characteristics Curves

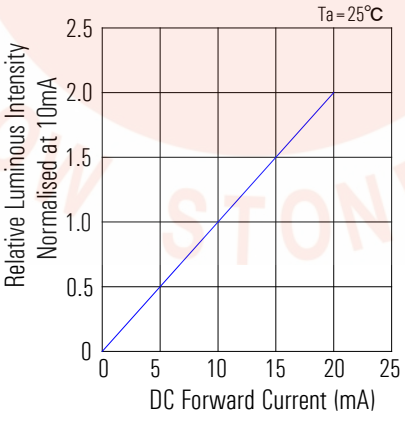
Relative Luminous Intensity Vs Wavelength



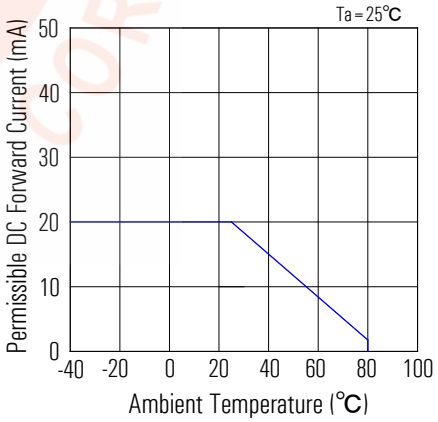
Forward Current vs Forward Voltage



Relative Luminous Intensity vs Forward Current



Forward Current Derating Curve



Packing & Label Specifications: