# YDQ-A25RBWK

**6.20mm (0.25inch) Red Clock** Display
Four Digit 7-segment LED Display

## 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 YDQ-A25RBWK is a 6.20mm (0.25inch) digit height seven-segment LED display.
- The display designed as clock display with active colon between the 2nd and 3rd digit.
- The device is available as either common anode or common cathode.
- The device is made with white diffused segments and black surface.

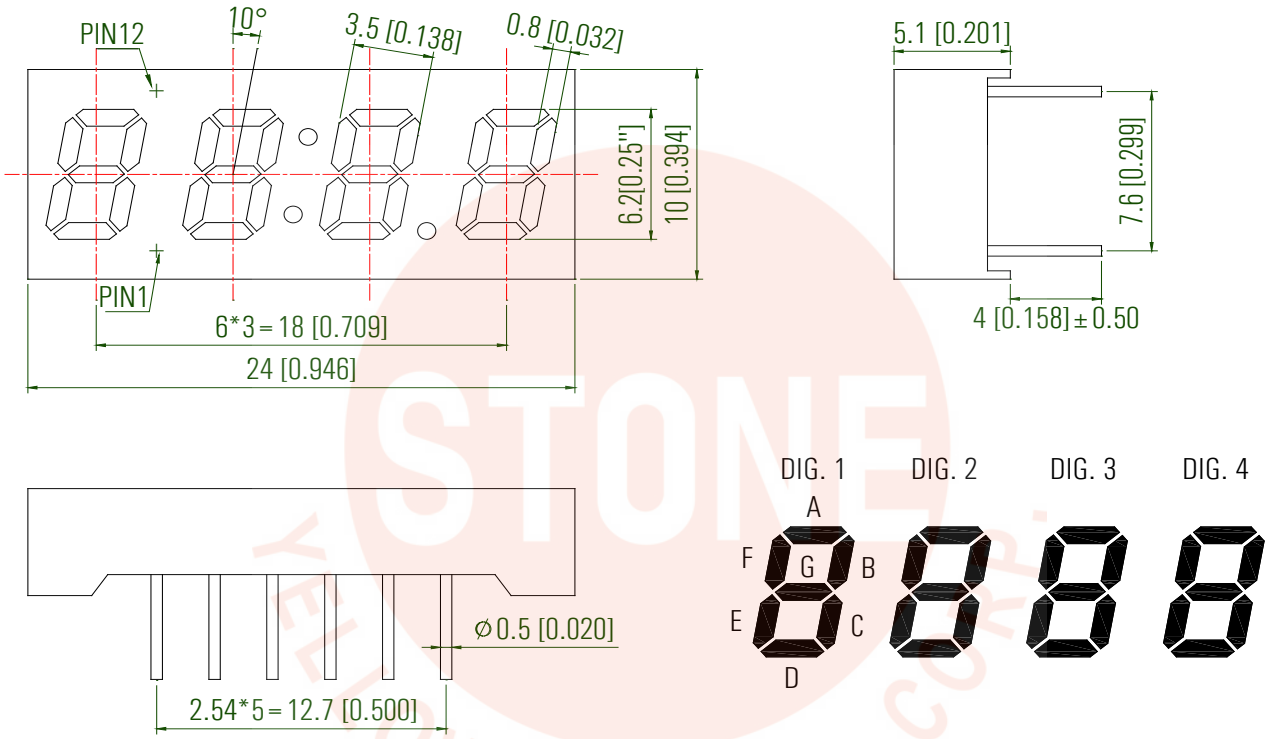
## Applications

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

## Device Selection Guide

| Part No. | Emitting Color | Circuit Common |
|---|---|---|
| YDQ-A25RBWK | Red | Common Anode |

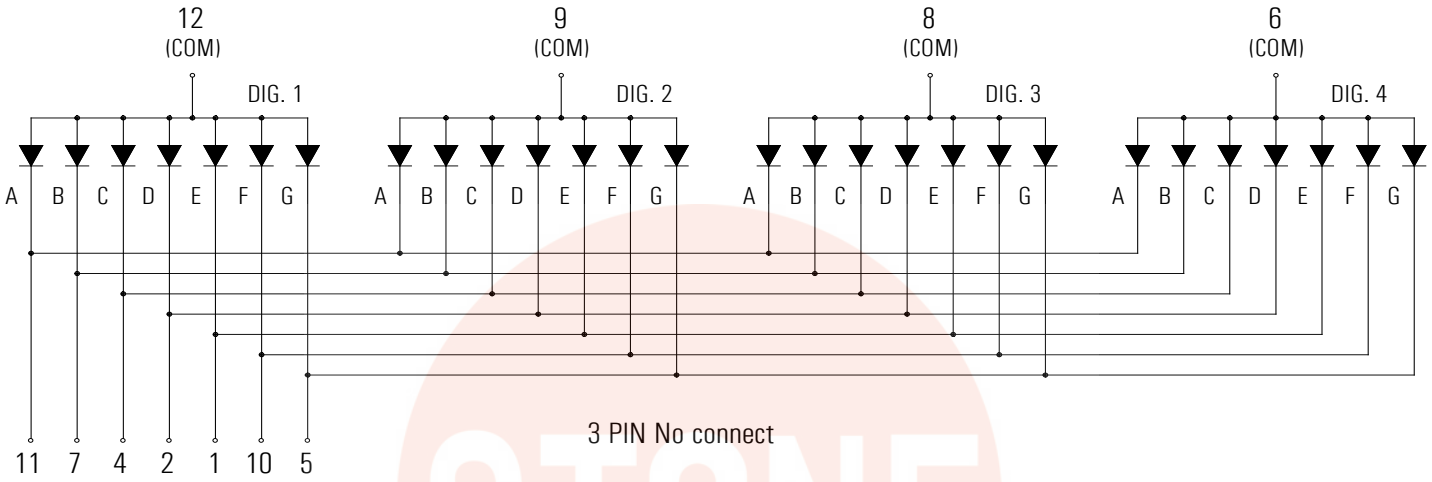
**Package Dimension**



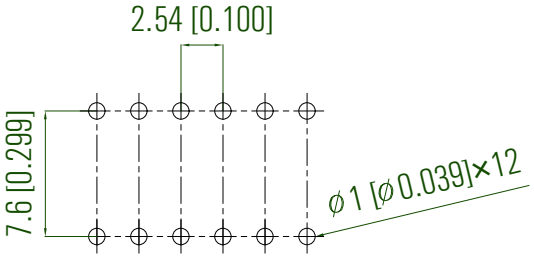

Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is ± 0.25mm (.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 $T_A$=25℃**

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

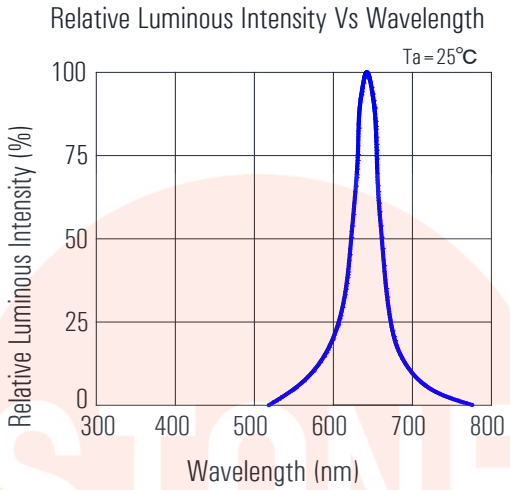
**Electrical Optical Characteristics at $T_A$=25℃**

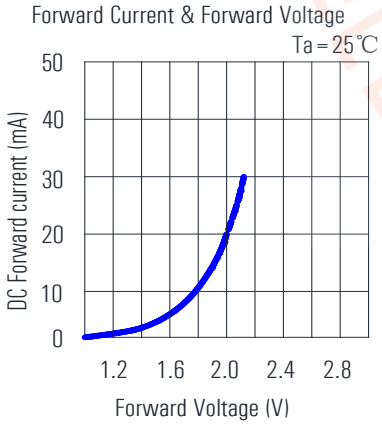
| Parameters | Symbol | Min. | Typ. | Max. | Unit | Test Condition |
|---|---|---|---|---|---|---|
| Average Luminous Intensity | Iv | 2.5 | 5.0 | --- | mcd | IF=5mA (Note a) |
| | | 5.0 | 10.0 | --- | mcd | IF=10mA (Note a) |
| Luminous Intensity Matching Ratio | $I_{v-m}$ | --- | --- | 2:1 | | IF=20mA |
| Peak Emission Wavelength | λp | --- | 645 | --- | nm | IF=20mA |
| Dominant Wavelength | λd | --- | 630 | --- | nm | IF=20mA (Note b) |
| Spectral Line Half-Width | △λ | --- | 20 | --- | nm | IF=20mA |
| Forward Voltage (Per Segment) | $V_F$ | --- | 2.0 | 2.4 | V | IF=20mA (Note c) |
| Reverse Current (Per Segment) | $I_R$ | --- | --- | 50 | μA | VR=5V |

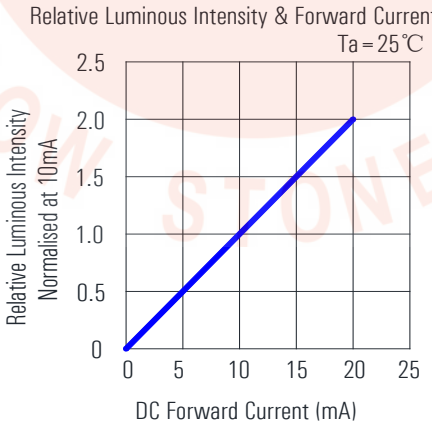
Notes:

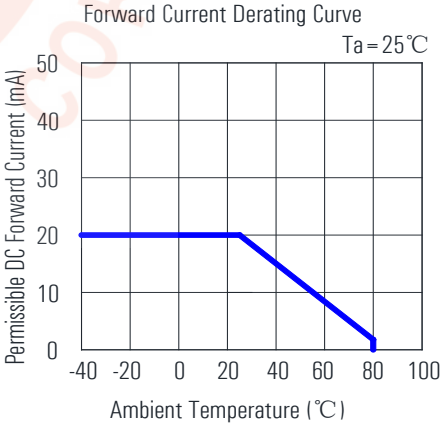
1. Luminous intensity is measured with a light sensor and filter combination that approximates the CIE eye-response curve. Tolerance of Luminous Intensity: ± 10%.
2. The dominant wavelength (λd) is derived from the CIE chromaticity diagram and represents the single wavelength which defines the color of the device.
3. Tolerance of forward voltage: ± 0.1V.

**Typical Electrical/Optical Characteristic Curves at $T_A$ = 25°C**

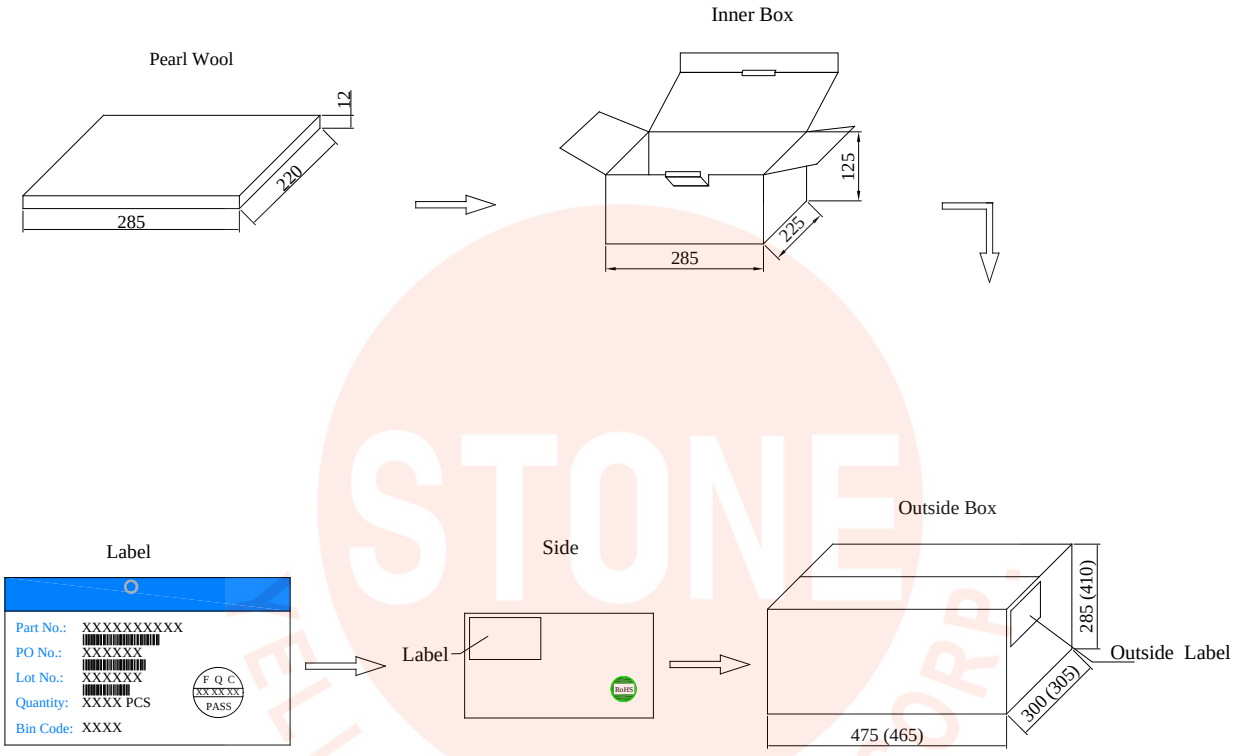


## Packing & Label Specifications




Notes:

1. The above "Packing & Label Specifications" refer to bag packaging and are for reference only.
2. Bag packaging will be used for through-hole LED digital displays with character heights exceeding 0.8 inches.
3. Luckylight through-hole LED digital displays offer three packaging options: tube, bag, and box. If customers have special packaging requirements, please confirm the required packaging method with the salesperson in advance when placing an order.