



## Seven Segment Display Data Sheet

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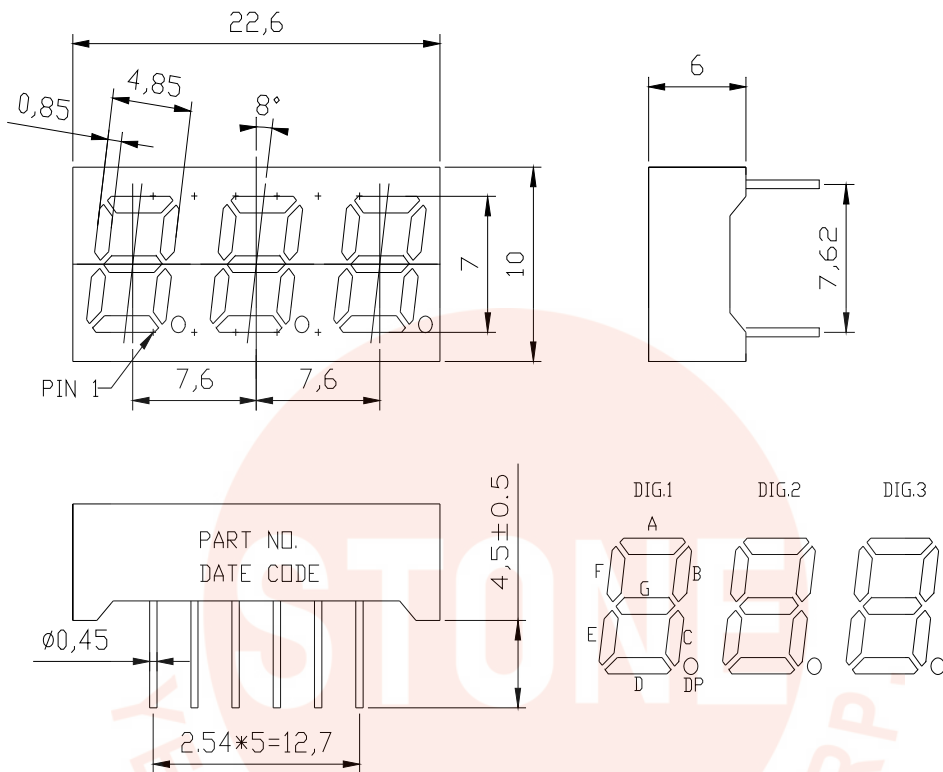
### Description

This YDT-2389CR-N is a 0.28 inch (7.0mm) digit height triple digit seven-segment display. This device uses AlInGaP Red LED chips, which are made from AlInGaP on GaAs substrate, and has black face and white segments.

### Features

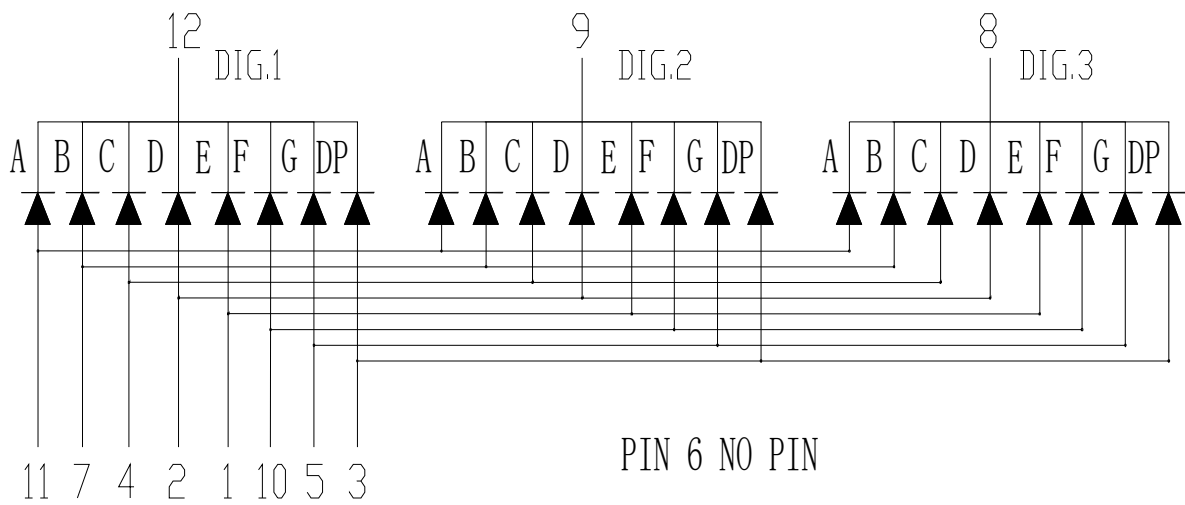
- 0.28-inch (7.0 mm) digit height
- Continuous uniform segments
- Low power requirement
- Excellent characters appearance
- High brightness & high contrast
- Wide viewing angle
- Solid state reliability
- Categorized for luminous intensity

## Package Dimensions



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

## Internal Circuit Diagram





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

| PARAMETER                                                                              | MAX.                                     | UNIT |
|----------------------------------------------------------------------------------------|------------------------------------------|------|
| Power Dissipation Per Segment                                                          | 70                                       | mW   |
| Peak Forward Current Per Segment<br>( Frequency 1Khz, 15% duty cycle)                  | 90                                       | mA   |
| Continuous Forward Current Per Segment                                                 | 20                                       | mA   |
| Reverse Voltage Per Segment                                                            | 5                                        | V    |
| Operating Temperature Range                                                            | -35 <sup>0</sup> C to +85 <sup>0</sup> C |      |
| Storage Temperature Range                                                              | -35 <sup>0</sup> C to +85 <sup>0</sup> C |      |
| Soldering Conditions:1/16 inch below seating plane for 3 seconds at 260 <sup>0</sup> 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.

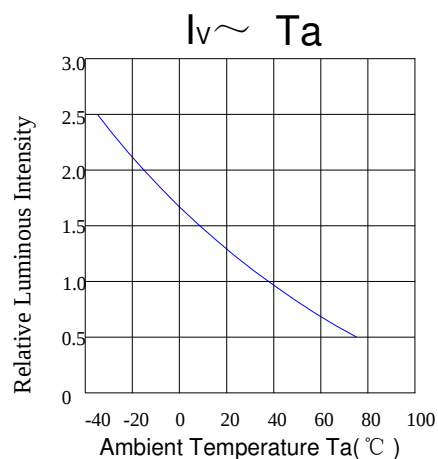
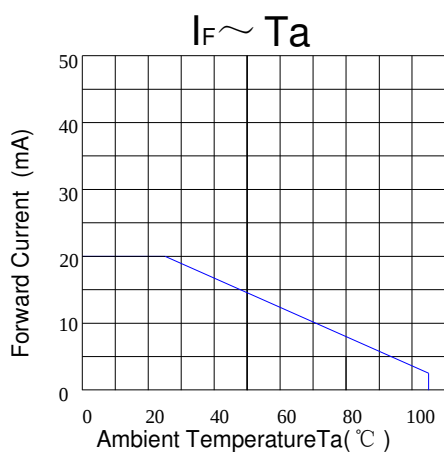
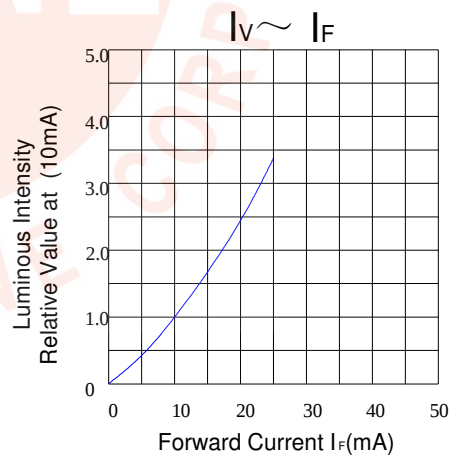
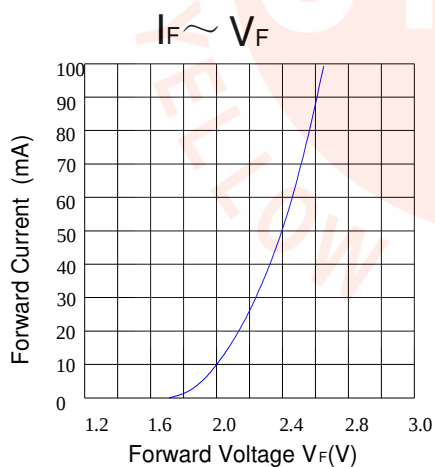
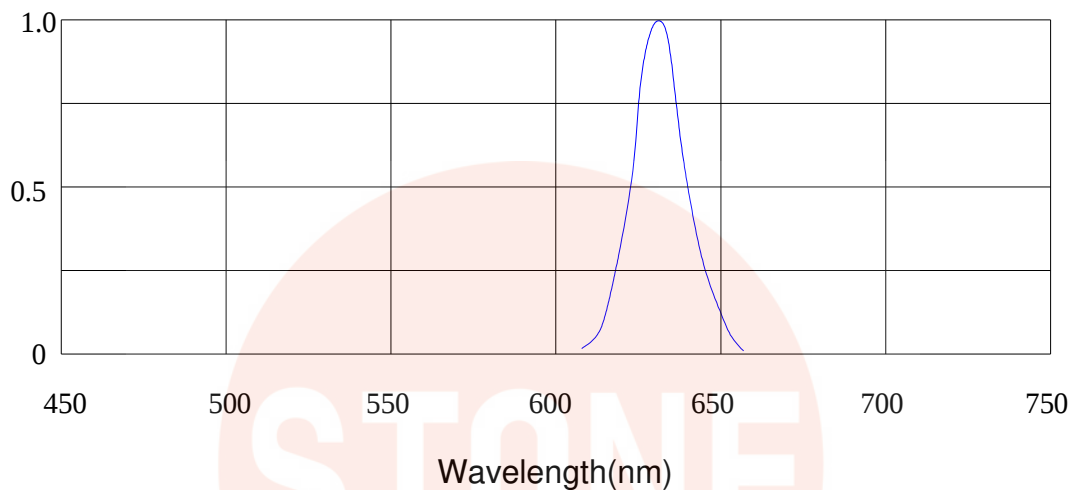
### Electrical / Optical Characteristics (Ta = 25°C)

| Parameter                         | Symbol          | Min. | Typ. | Max. | Unit    | Test Condition |
|-----------------------------------|-----------------|------|------|------|---------|----------------|
| Luminous Intensity                | Iv              | 8    | 15   |      | mcd     | IF=10mA        |
| Peak Emission Wavelength          | $\lambda_p$     |      | 632  |      | nm      | IF=20mA        |
| Spectral Line Half-Width          | $\Delta\lambda$ |      | 20   |      | nm      | IF=20mA        |
| Dominant Wavelength               | $\lambda_d$     |      | 624  |      | nm      | IF=20mA        |
| Forward Voltage Per Segment       | VF              |      | 2.0  | 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        |

## Typical Electrical / Optical Characteristic Curves

(25°C Ambient Temperature Unless Otherwise Noted)

### RELATIVE INTENSITY vs WAVELENGTH





早安股份有限公司  
YELLOW STONE CORP.

## Package Flow

