

**Product :**  
0.30 " DUAL DIGIT DISPLAY

**Part Number :**  
VAOD-C301S9-BW/47  
VAOD-A301S9-BW/47

**Description**  
Chip Material-S: AlGaAs/GaAs.  
Emitted Color: Super Bright Red.  
Black Face & White Segment.

VAOD-C301S9-BW/47  
Common Cathode.

VAOD-A301S9-BW/47  
Common Anode.

### Absolute Maximum Ratings at Ta=25°C

| Parameter                                                               | Symbol | Super Bright Red | Unit  |
|-------------------------------------------------------------------------|--------|------------------|-------|
| Power dissipation per dice                                              | PAD    | 75               | mW    |
| Derating Liner from 25°C per dice                                       | -      | 0.42             | mA/°C |
| Continuous forward current per dice                                     | IAF    | 30               | mA    |
| Peak current per dice (duty cycle 1/10, 1kHz)                           | IPF    | 150              | mA    |
| Reverse voltage per dice                                                | VR     | 5                | V     |
| Operating temperature                                                   | Topr   | -25 to +85       | °C    |
| Storage temperature                                                     | Tstg   | -25 to +85       | °C    |
| Solder temperature 1/16 inch below seating plane for 3 seconds at 260°C |        |                  |       |

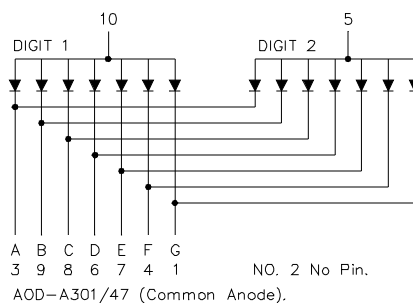
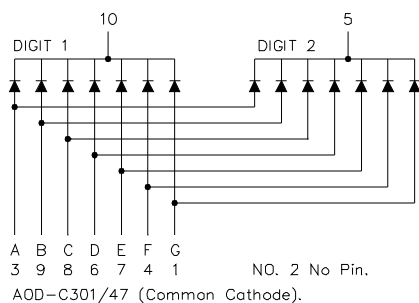
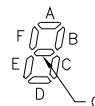
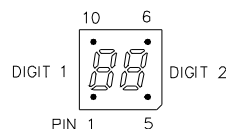
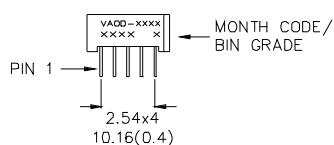
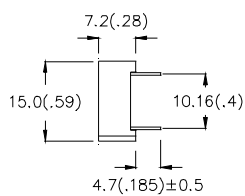
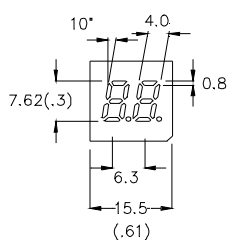
### Electrical / Optical Characteristics and Curves at Ta=25°C

| Parameter                      | Symbol           | Test Condition | Min. | Typ. | Max. | Unit    |
|--------------------------------|------------------|----------------|------|------|------|---------|
| Forward Voltage per segment    | VF               | IF=20 mA       |      | 1.8  | 2.5  | V       |
| Luminous intensity per segment | IV               | IF=20 mA       |      | 4.0  |      | mcd.    |
| Peak emission wavelength       | $\lambda_d$      | IF=20 mA       |      | 660  |      | nm      |
| Spectrum radiation bandwidth   | $\Delta \lambda$ | IF=20 mA       |      | 20   |      | Deg.    |
| Reverse Current                | IR               | VR=5 V         |      |      | 100  | $\mu$ A |

\* Tolerance :  $\pm 20\%$ .

## Package Dimension & Internal Circuit

- \* 0.3 inch (7.62mm) Digit height.
- \* Case mold type.
- \* Wide viewing angle.



### NOTE:

1. All pins are  $\varnothing 0.51(.02)$ .
2. Dimension in millimeter (inch), and tolerance is  $\pm 0.30$  (.01) unless otherwise noted.

VER\_A-08-05-P47

## RED

### Typical Electro-optical Characteristic Curves (25°C Free Air Temperature Unless Otherwise Specified)

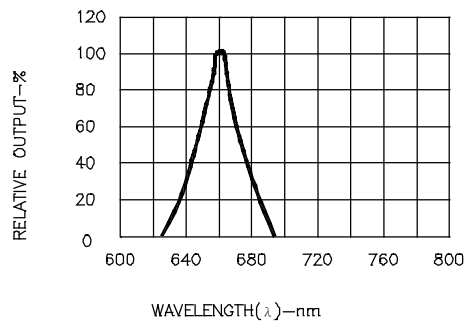


Fig.1 SPECTRAL RESPONSE

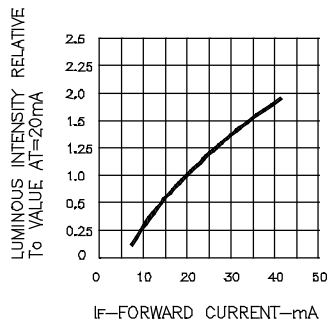


Fig.2 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT

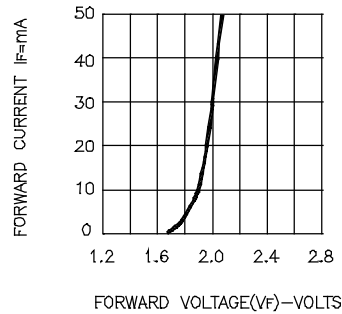


Fig.3 FORWARD CURRENT VS FORWARD VOLTAGE

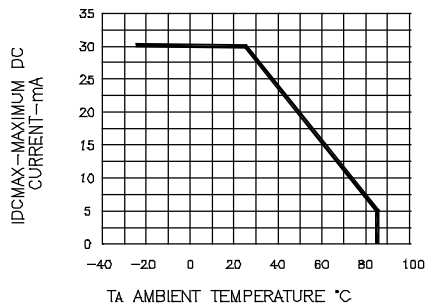


Fig.4 MAXIMUM ALLOWABLE DC CURRENT PER SEGMENT VS. A FUNCTION OF AMBIENT TEMPERATURE



Fig.5 MAX PEAK CURRENT VS. DUTY CYCLE %  
(REFRESH RATE  $f=1\text{KHz}$ )