

**Product :**  
**0.40 " SINGLE DIGIT DISPLAY**

**Part Number :**  
**VAOS-C402G9-BW/50**  
**VAOS-A402G9-BW/50**

**Description**  
Chip Material-G: GaP/GaP.  
Emitted Color: Yellow Green.  
Black Face & White Segment.

**VAOS-C402G9-BW/50**  
Common Cathode.

**VAOS-A402G9-BW/50**  
Common Anode.

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

| Parameter                                                               | Symbol | Yellow Green | Unit  |
|-------------------------------------------------------------------------|--------|--------------|-------|
| Power dissipation per dice                                              | PAD    | 70           | mW    |
| Derating Liner from 25°C per dice                                       | -      | 0.33         | mA/°C |
| Continuous forward current per dice                                     | IAF    | 25           | mA    |
| Peak current per dice (duty cycle 1/10, 1kHz)                           | IPF    | 90           | 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 |        |              |       |

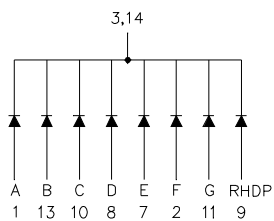
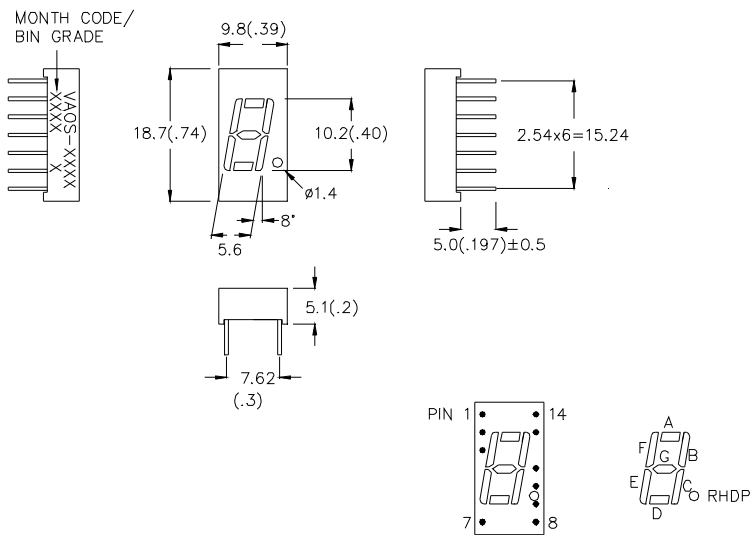
### Electrical / Optical Characteristics and Curves at Ta=25°C

| Parameter                      | Symbol           | Test Condition | Min. | Typ. | Max. | Unit    |
|--------------------------------|------------------|----------------|------|------|------|---------|
| Forward Voltage per segment    | VF               | IF=20 mA       |      | 2.1  | 2.8  | V       |
| Luminous intensity per segment | IV               | IF=20 mA       |      | 7.0  |      | mcd.    |
| Peak emission wavelength       | $\lambda_d$      | IF=20 mA       |      | 565  |      | nm      |
| Spectrum radiation bandwidth   | $\Delta \lambda$ | IF=20 mA       |      | 30   |      | Deg.    |
| Reverse Current                | IR               | VR=5 V         |      |      | 100  | $\mu A$ |

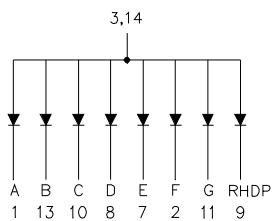
\* Tolerance :  $\pm 20\%$ .

## Package Dimension & Internal Circuit

- \* 0.4 inch (10.16mm) Digit height.
- \* Case mold type.
- \* Wide viewing angle.



AOS-C402/50 Common Cathode.  
NO. 4, 5, 6, 12 NO PIN.



AOS-A402/50 Common Anode.  
NO. 4, 5, 6, 12 NO PIN.

NOTE:

1. All pins are  $\phi 0.45(.02)$ .
2. Dimension in millimeter (inch), and tolerance is  $\pm 0.30 (.01)$  unless otherwise noted.

VER\_A-09-09-P50

## GREEN

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

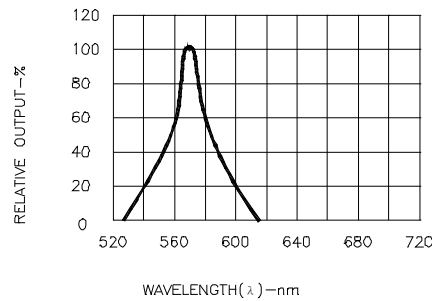


Fig.1 SPECTRAL RESPONSE

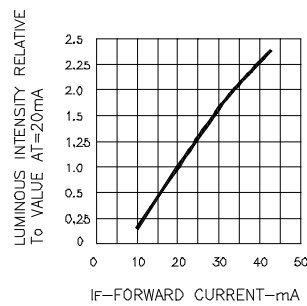


Fig.2 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT

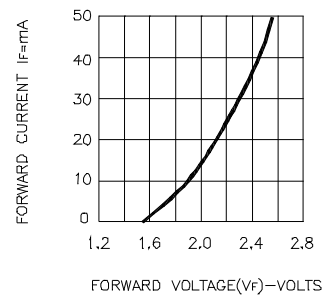


Fig.3 FORWARD CURRENT VS FORWARD VOLTAGE

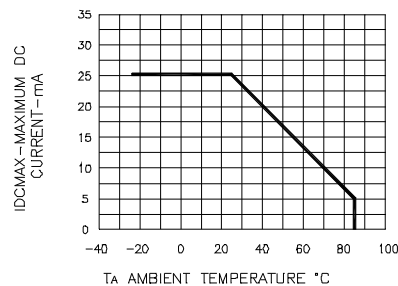


Fig.4 MAXIMUM ALLOWABLE DC CURRENT PER SEGMENT VS. A FUNCTION OF AMBIENT TEMPERATURE

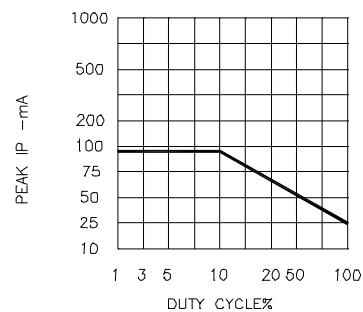


Fig.5 MAX PEAK CURRENT VS. DUTY CYCLE % (REFRESH RATE f=1KHz)

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