

Product :
2.0" DOT-MATRIX DISPLAY

Part Number :
VAOM-C20571S-BW/40
VAOM-A20571S-BW/40

Description

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

VAOM-C20571S-BW/40
Column Cathode, Row Anode.

VAOM-A20571S-BW/40
Column Anode, Row Cathode.

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 5 seconds at 260°C | | | |

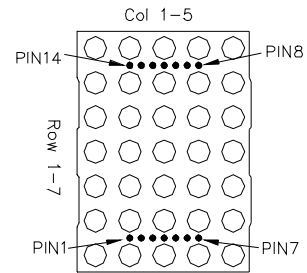
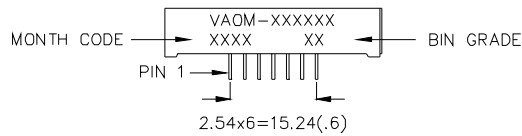
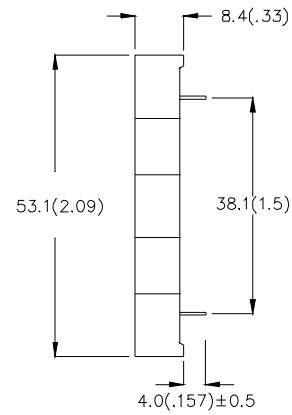
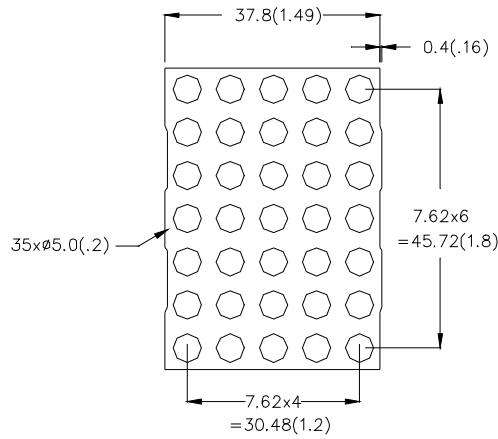
Electrical / Optical Characteristics and Curves at Ta=25°C

| Parameter | Symbol | Test Condition | Min. | Typ. | Max. | Unit |
|------------------------------|------------------|----------------|------|------|------|---------|
| Forward Voltage per dot | VF | IF=20 mA | | 1.8 | 2.5 | V |
| Luminous intensity per dot | IV | IF=20 mA | | 18 | | mcd. |
| Peak emission wavelength | λd | IF=20 mA | | 660 | | nm |
| Spectrum radiation bandwidth | $\Delta \lambda$ | IF=20 mA | | 20 | | nm |
| Reverse Current | IR | VR=5 V | | | 100 | μA |

* Tolerance : $\pm 20\%$.

Package Dimension & Internal Circuit

- * 2.0 inch (50.72mm) Matrix height.
- * 5*7 array.
- * Description: VAOM-C20571. Column Cathode, Row Anode.
- * Description: VAOM-A20571. Column Anode, Row Cathode.

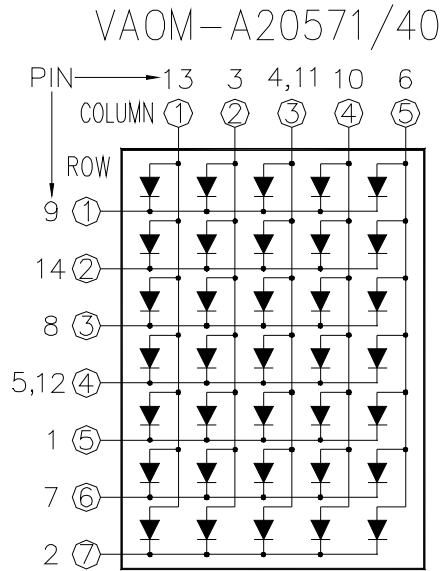
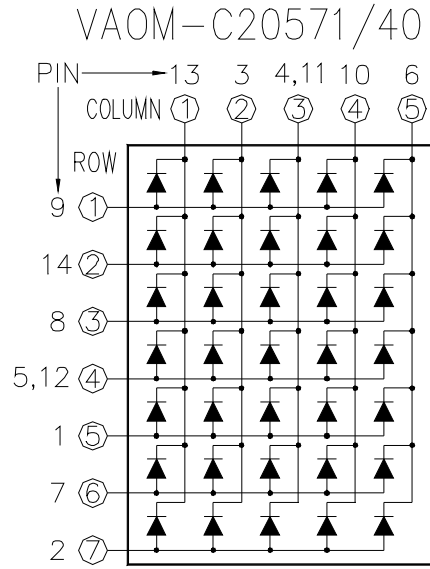


NOTE:

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

VER_D-09-12-P40

Internal Circuit



Cathode(-) ← Anode(+)

VER_D-09-12-P40

RED

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

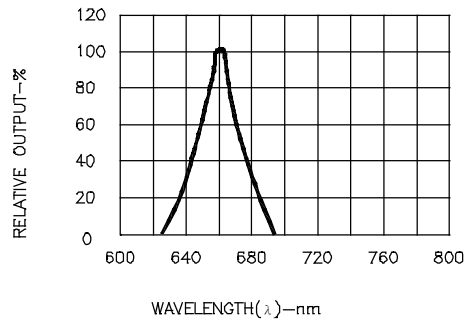


Fig.1 SPECTRAL RESPONSE

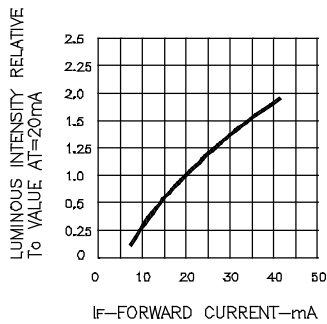


Fig.2 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT

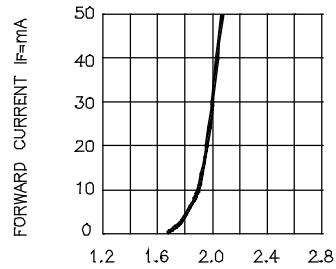


Fig.3 FORWARD CURRENT VS FORWARD VOLTAGE

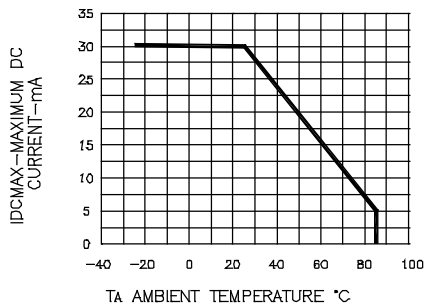


Fig.4 MAXIMUM ALLOWABLE DC CURRENT PER SEGMENT VS. A FUNCTION OF AMBIENT TEMPERATURE

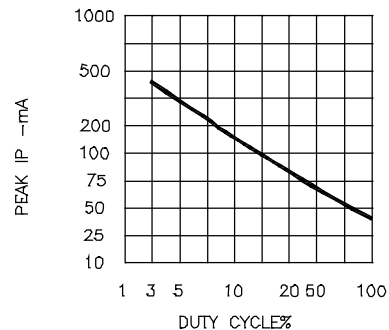


Fig.5 MAX PEAK CURRENT VS. DUTY CYCLE % (REFRESH RATE f=1KHz)