

**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			

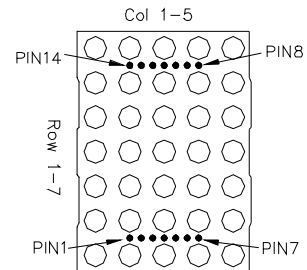
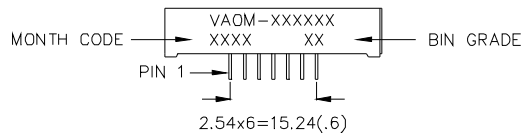
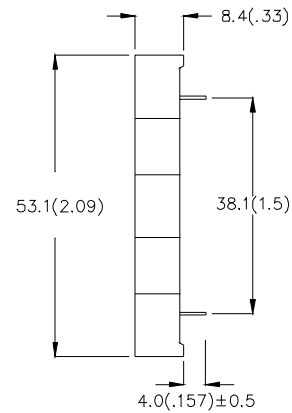
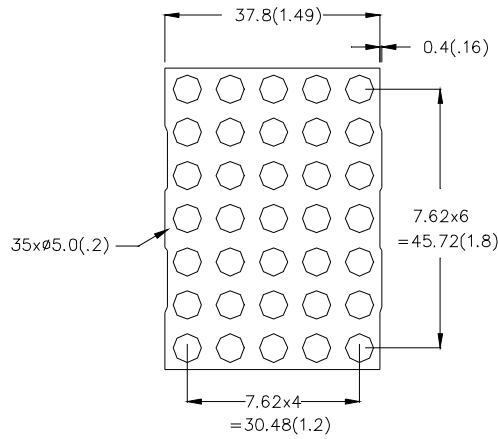
Electrical / Optical Characteristics and Curves at Ta=25°C

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	$\lambda d$	IF=20 mA		660		nm
Spectrum radiation bandwidth	$\Delta \lambda$	IF=20 mA		20		nm
Reverse Current	IR	VR=5 V			100	$\mu A$

\* 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.

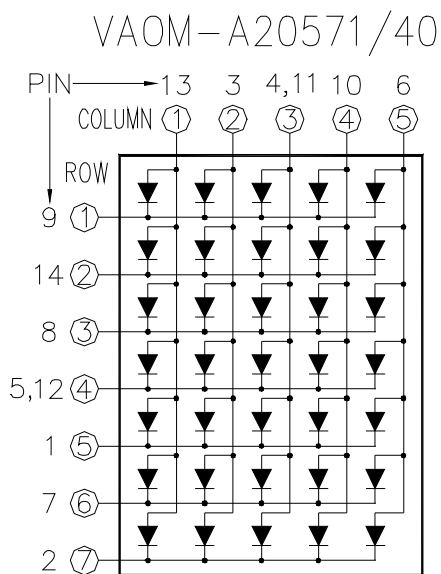
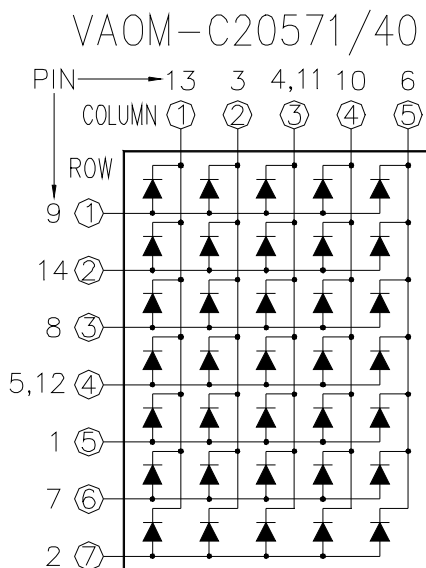


### NOTE:

1. All pins are  $\phi$ 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)

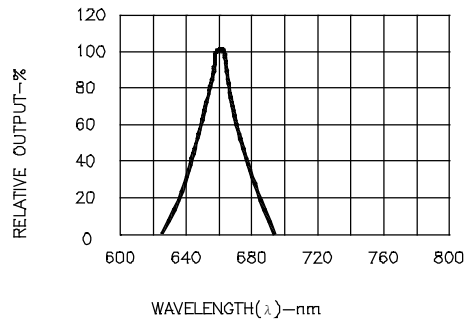


Fig.1 SPECTRAL RESPONSE

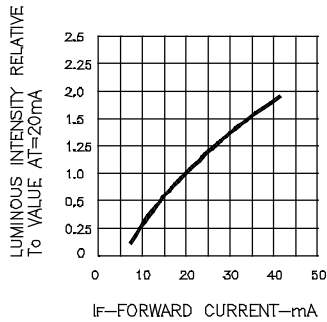


Fig.2 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT

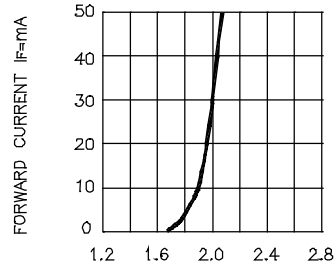


Fig.3 FORWARD CURRENT VS FORWARD VOLTAGE

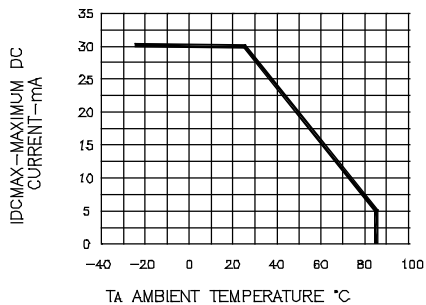


Fig.4 MAXIMUM ALLOWABLE DC CURRENT PER SEGMENT VS. A FUNCTION OF AMBIENT TEMPERATURE



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