0.787 inch (20.0mm)
8X8 DOT MATRIX LED DISPLAY UVP-7188 X SERIES

DESCRIPTION

The UVP-7188 X SERIES is 0.787 inch (20.0mm) height 8X8 dot matrix display.

Single color display have the choices of three bright colors-amber/green/red orange.

Multicolor display are applicable to two colors : green and red (

All device have gray face and white dot.

A26 The green LED chip are made from GaP on a transparent GaP substrate.

The red orange and amber LED chip are made from GaAsP on a transparent GaP substrate.

FEATURES

- Industuy standard size
- Wide viewing angle
- Continuous uniform dot matrix.
- Excellent characters appearance
- Low power requirement

DEVICES

PART NO.	DESCRIPTION	PACKAGE DIMENSION	INTERNAL CIRCUIT DIAGRAM
UVP-7188	Column Cathode	Fig. 1	Fig. 2

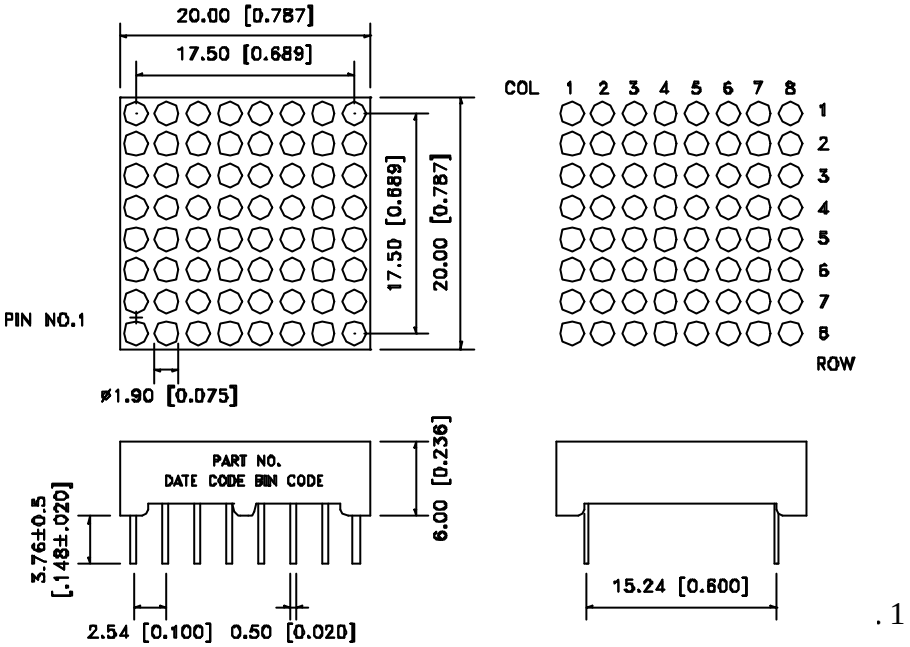
ABSOLUTE MAXIMUM RATINGS

@ T_A=25°C

PARAMETER	AMBER	GREEN	RED ORANGE	UNIT
Power Dissipation Per Dot	32	32	32	mW
Peak Forward Current Per Dot	90	90	90	mA
Continuous Forward Current Per Dot	11	11	11	mA
Derating Linear From 25°C Per Dot	0.15	0.15	0.15	mA/°C
Reverse Voltage Per Dot	5	5	5	V
Operating Temperature Range	-35°Cto+85°C			
Storage Temperature Range	-35°Cto+85°C			
Solder Temperature 1/16 inch Below Seating Plane for 3 Seconds at 260°C				

0.787 inch (20.0mm)
8X8 DOT MATRIX LED DISPLAY **UVP-7188 X SERIES**

PACKAGE DIMENSIONS



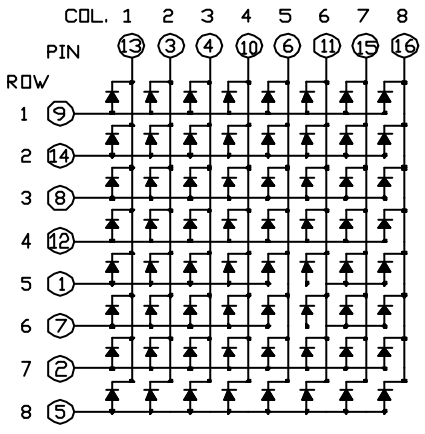
. 1

Unit:mm(inches)

Tolerance is ± 0.25mm(0.01")unless otherwise noted

INTERNAL CIRCUIT DIAGRAM

UVP-7188A



UVP-7188AA

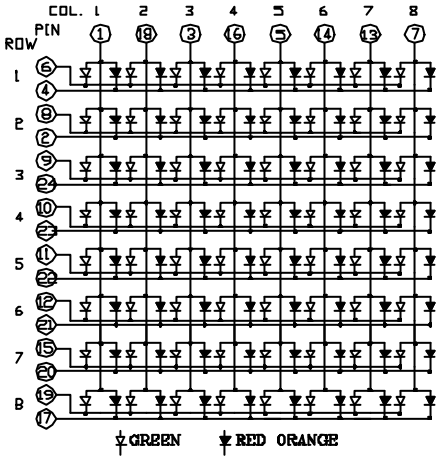


Fig. 2

PIN CONNECTION

PIN	UVP-7188AA		
	CONNECTION	PIN	CONNECTION
1	ANODE COL. 1	13	ANODE COL. 7
2	CATHODE ROW 2 (R)	14	ANODE COL. 6
3	ANODE COL. 3	15	CATHODE ROW 7 (G)
4	CATHODE ROW 1 (R)	16	ANODE COL. 4
5	ANODE COL. 5	17	CATHODE ROW 8 (R)
6	CATHODE ROW 1 (G)	18	ANODE COL. 2
7	ANODE COL. 8	19	CATHODE ROW 8 (G)
8	CATHODE ROW 2 (G)	20	CATHODE ROW 7 (R)
9	CATHODE ROW 3 (G)	21	CATHODE ROW 6 (R)
10	CATHODE ROW 4 (G)	22	CATHODE ROW 5 (R)
11	CATHODE ROW 5 (G)	23	CATHODE ROW 4 (R)
12	CATHODE ROW 6 (G)	24	CATHODE ROW 3 (R)

PIN CONNECTION

PIN	UVP-7188		
	CONNECTION	PIN	CONNECTION
1	ANODE ROW 5	9	ANODE ROW 1
2	ANODE ROW 7	10	CATHODE COL. 4
3	CATHODE COL. 2	11	CATHODE COL. 6
4	CATHODE COL. 3	12	ANODE ROW 4
5	ANODE ROW 8	13	CATHODE COL. 1
6	CATHODE COL. 5	14	ANODE ROW 2
7	ANODE ROW 6	15	CATHODE COL. 7
8	ANODE ROW 3	16	CATHODE COL. 8

ELECTRICAL/OPTICAL CHARACTERISTICS

Anber (UVP-7188A)

@ T_A=25°C

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
Average Luminous Intensity	I_V	630	2000		μcd	I_p = 80 mA 1/16 Duty
Peak Emission Wavelength	λp/Hue		610/602		nm	I_F = 20 mA
Spectral Line Half-Width	Δλ		35		nm	I_F = 20 mA
Forward Voltage, any Dot	I_R				V	I_F = 21 mA
Revese Curent, any Dot					μA	V_R = 5 V
Luminous Intensity Matching Ratio	I_V-m			2:1		I_F = 10 mA

GREEN (UVP-7188G) & (UVP-7188AA GREEN)

@ T_A=25°C

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
Average Luminous Intensity	I_V	630	2000		μcd	I_p = 80 mA 1/16 Duty
Peak Emission Wavelength	λp/Hue		565/569		nm	I_F = 20 mA
Spectral Line Half-Width	Δλ		35		nm	I_F = 20 mA
Forward Voltage, any Dot	V_F		2.1	2.6	V	I_F = 20 mA
Reverse Current, any Dot	I_R			100	μA	V_R = 5 V
Luminous Intensity Matching Ratio	I_V-m			2:1		I_F = 10 mA

RED ORANGE (UVP-7188E) & (UVP-7188AA RED ORANGE)

@ T_A=25°C

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
Average Luminous Intensity	I_V	630	2000		μcd	I_p = 80 mA 1/16 Duty
Peak Emission Wavelength	λp/Hue		630/621		nm	I_F = 20 mA
Spectral Line Half-Width	Δλ		35		nm	I_F = 20 mA
Forward Voltage, any Dot	V_F		2.0	2.6	V	I_F = 20 mA
Reverse Current, any Dot	I_R			100	μA	V_R = 5 V
Luminous Intensity Matching Ratio	I_V-m			2:1		I_F = 10 mA

TYPICAL ELECTRICAL/OPTICAL CHARACTERISTIC CURVES

(Ambient Temperature =25°C Unless Otherwise Noted)

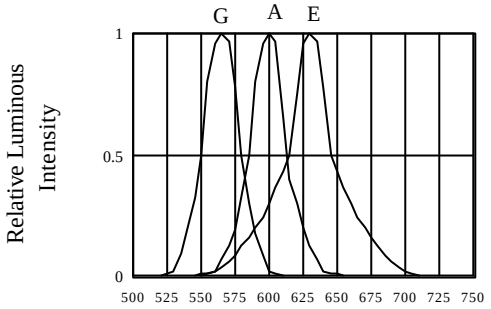
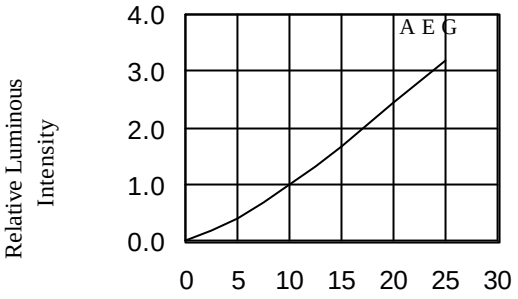
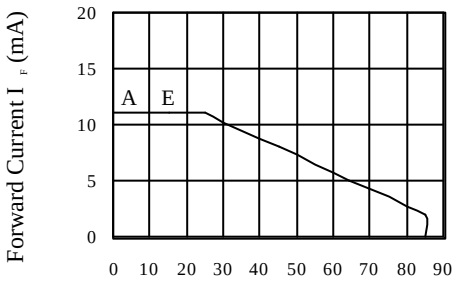


FIG.1 RELATIVE LUMINOUS INTENSITY VS. WAVELENGTH



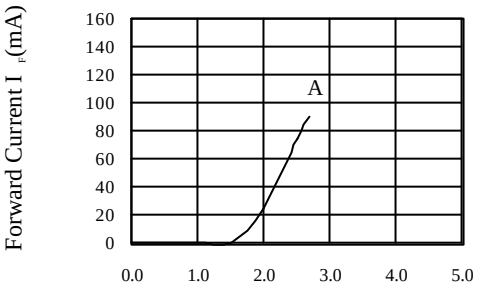
Forward Current I_F(mA)

FIG.2 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT



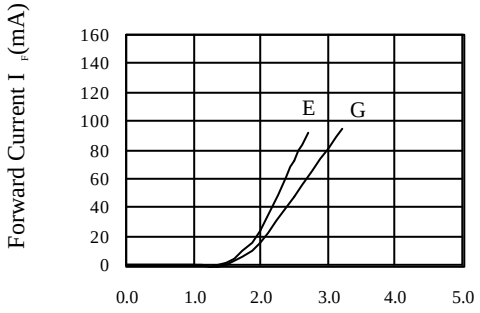
Ambient Temperature (°C)

FIG.3 ALLOWABLE DC CURRENT VS. AMBIENT TEMPERATURE



Forward Voltage (V)

FIG.4 FORWARD CURRENT VS. FORWARD VOLTAGE



Forward Voltage (V)

FIG.4 FORWARD CURRENT VS. FORWARD VOLTAGE