BRIGHT LED ELECTRONICS CORP.

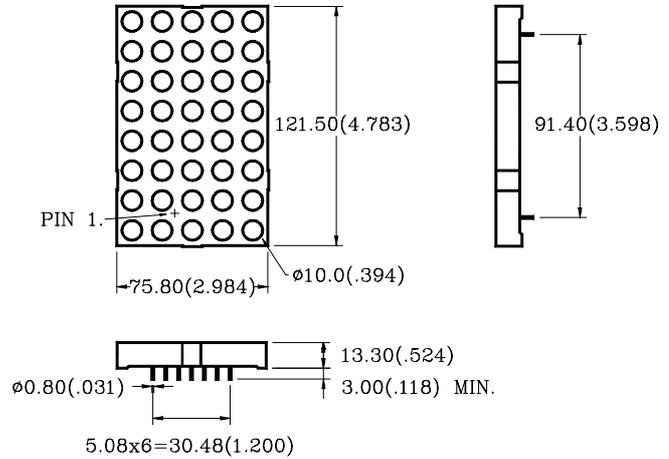## ● Features :

1. 4.78 inch (121.50mm) matrix height.

2. Dot size 10.00mm.

3. Low power requirement.

4. Excellent characters appearance.

5. Solid state reliability.

6. Multiplex drive , column anode com. and row cathode com.

7. Single color available.

8. Categorized for luminous intensity.

9. Stackable vertically and horizontally.

● Description :

1. The BM-40458MD is a 121.50mm (4.78") matrix height 5×8 dot matrix display.

2. This product use hi-eff red chips, which are made form GaAsP on GaP substrate.

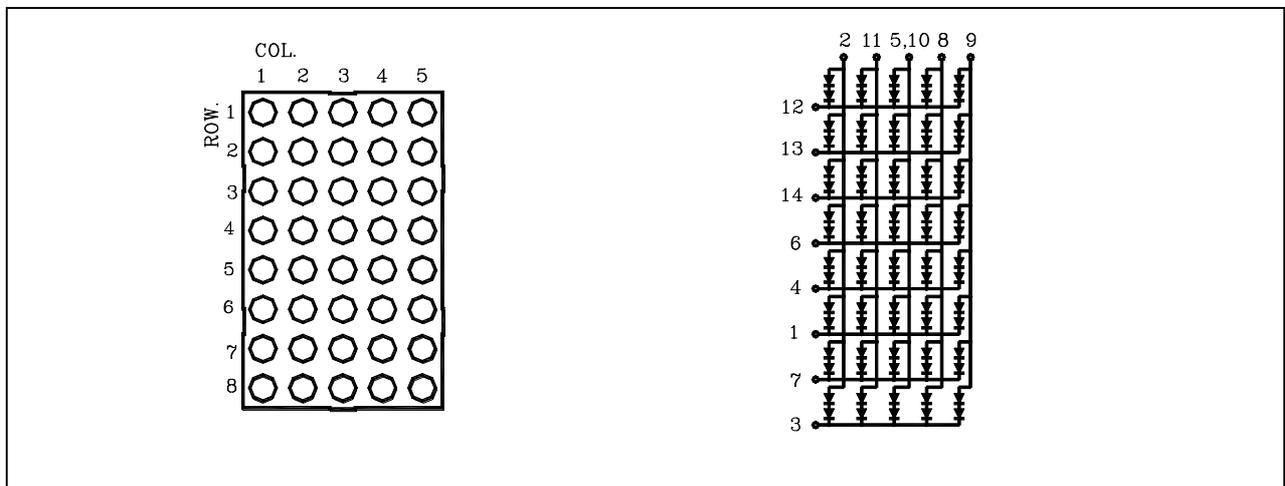3. This product have a black face and white dots.

● Package Dimensions :

121.50(4.783)

91.40(3.598)

PIN 1.

75.80(2.984)

⌀10.0(.394)

⌀0.80(.031)

13.30(.524)

3.00(.118) MIN.

5.08x6=30.48(1.200)

Notes:
1. All dimensions are in millimeters(inches).
2. Tolerance is ±0.25mm(.01")unless otherwise specified.
3. Specifications are subject to change without notice.

● Internal Circuit Diagram :

● **Absolute Maximum Ratings(Ta=25℃)**

Parameter	Symbol	Rating	Unit
Power Dissipation Per Dot	Pd	160	mW
Forward Current Per Dot	I_F	30	mA
Peak Forward Current Per Dot	I_{FP} (Duty 1/10, 1KHZ)	150	mA
Reverse Voltage Per Dot	V_R	5	V
Operating Temperature	Topr	-40℃~80℃	-
Storage Temperature	Tstg	-40℃~85℃	-
Soldering Temperature (1/16" From Body)	Tsol	260℃ For 5 Seconds	-

● **Electrical And Optical Characteristics(Ta=25℃)**

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Forward Voltage Per Dot	V_F	I_F=10mA	-	3.8	5.0	V
Luminous Intensity Per Dot	Iv	I_F=10mA	-	12.0	-	mcd
Reverse Current Per Dot	I_R	V_R=5V	-	-	100	μA
Peak Wave Length	λp	I_F=10mA	-	635	-	nm
Dominant Wave Length	λd	I_F=10mA	-	630	-	nm
Spectral Line Half-width	$\Delta\lambda$	I_F=10mA	-	45	-	nm

● **Typical Electro-Optical Characteristics Curves**

(25℃ Ambient Temperature Unless Otherwise Noted)

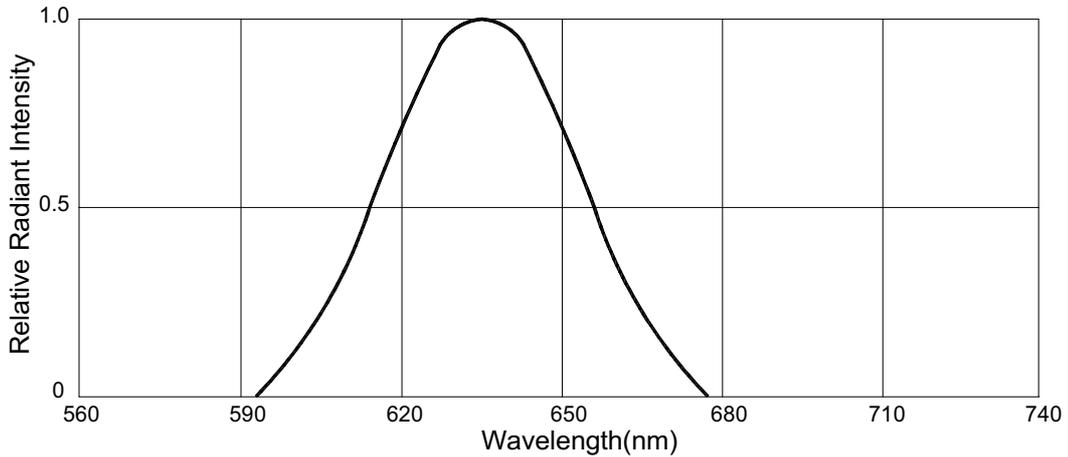Fig.1 Relative Radiant Intensity VS. Wavelength
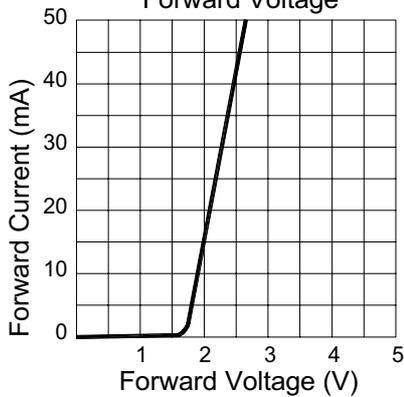

Fig.2 Forward Current VS. Forward Voltage

Fig.3 Relative Luminous Intensity VS. Ambient Temperature
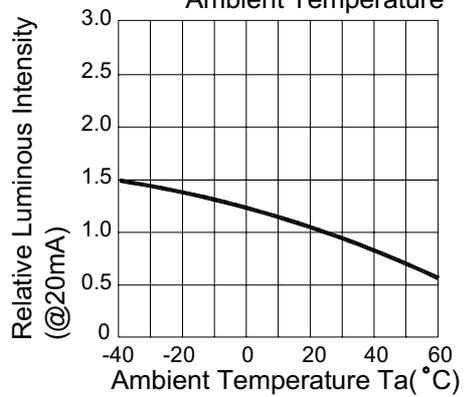

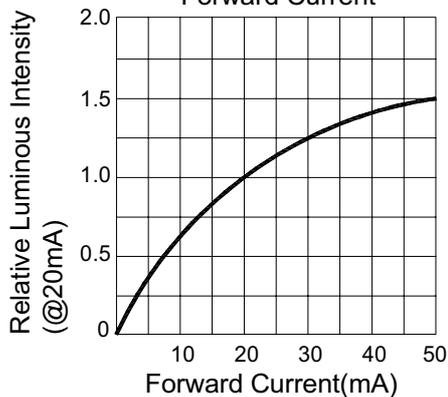Fig.4 Relative Luminous Intensity VS. Forward Current

Fig.5 Forward Current Derating Curve VS. Ambient Temperature