

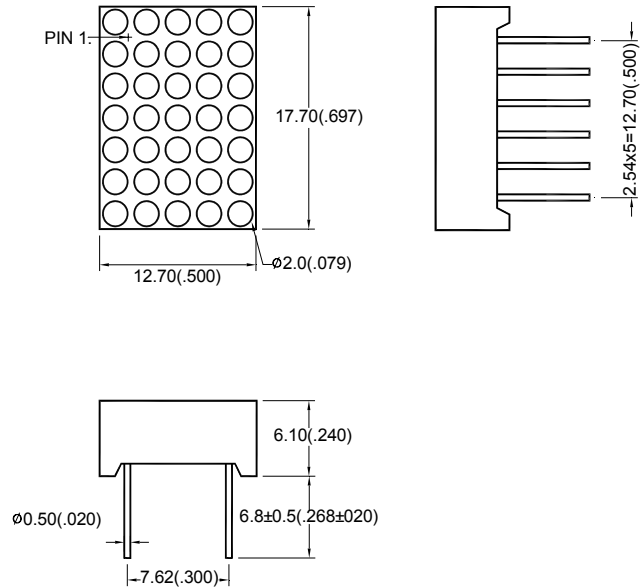
### ● Features :

1. 0.7 inch (17.70mm) matrix height.
2. Dot size 2.0mm.
3. Low power requirement.
4. Excellent characters appearance.
5. Solid state reliability.
6. Multiplex drive , column cathode com. and row anode com..
7. Single color available.
8. Categorized for luminous intensity.
9. Stackable vertically and horizontally.

### ● Description :

1. The BM-07JE57ND is a 17.70mm(0.7") matrix height 5×7 dot matrix display.
2. This product use super orange red chips
3. This product have a black face and white dots.
4. This product doesn't contain restricted substance, comply ROHS standard.

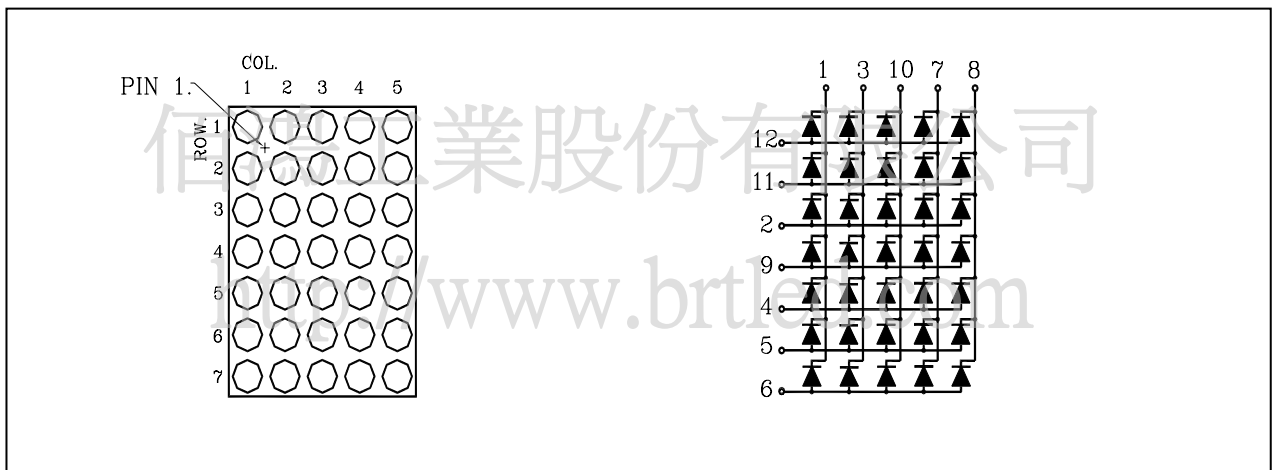
### ● Package Dimensions :



### Notes:

1. All dimensions are in millimeters(inches).
2. Tolerance is  $\pm 0.25\text{mm} (.01\text{"})$  unless otherwise specified.
3. Specifications are subject to change without notice.

### ● Internal Circuit Diagram :



● **Absolute Maximum Ratings(Ta=25°C)**

Parameter	Symbol	Rating	Unit
Power Dissipation Per Dot	Pd	80	mW
Forward Current Per Dot	I <sub>F</sub>	30	mA
Peak Forward Current Per Dot	I <sub>FP</sub> (Duty 1/10, 1KHZ)	150	mA
Reverse Voltage Per Dot	V <sub>R</sub>	5	V
Operating Temperature	Topr	-40°C~85°C	-
Storage Temperature	Tstg	-40°C~85°C	-
Soldering Temperature (1/16" From Body)	Tsol	260°C For 5 Seconds	-

● **Electrical And Optical Characteristics(Ta=25°C)**

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Forward Voltage Per Dot	V <sub>F</sub>	I <sub>F</sub> =10mA	-	1.8	2.5	V
Luminous Intensity Per Dot	I <sub>v</sub>	I <sub>F</sub> =10mA	-	35.0	-	mcd
Reverse Current Per Dot	I <sub>R</sub>	V <sub>R</sub> =5V	-	-	100	μA
Peak Wave Length	λ <sub>p</sub>	I <sub>F</sub> =10mA	-	630	-	nm
Dominant Wave Length	λ <sub>d</sub>	I <sub>F</sub> =10mA	615	-	625	nm
Spectral Line Half-width	Δλ	I <sub>F</sub> =10mA	-	20	-	nm

## ● Typical Electro-Optical Characteristics Curves

(25°C Ambient Temperature Unless Otherwise Noted)

Fig.1 Relative Radiant Intensity VS. Wavelength

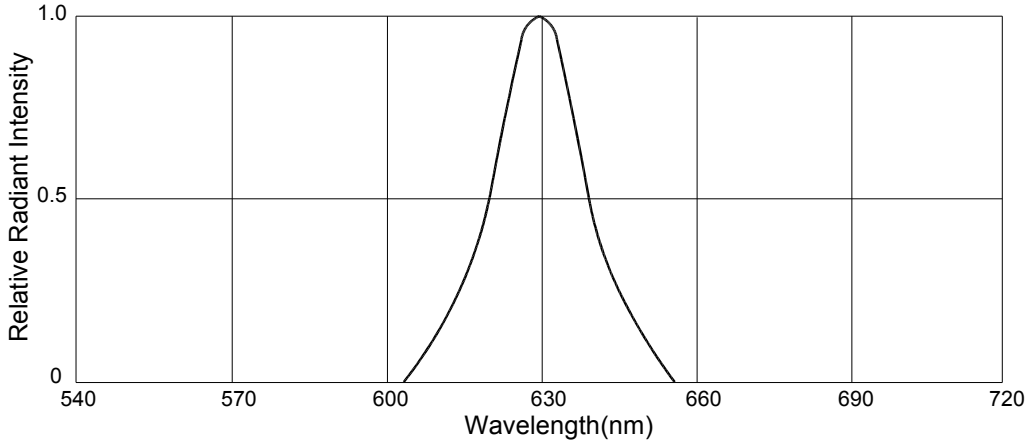


Fig.2 Forward Current VS. Forward Voltage

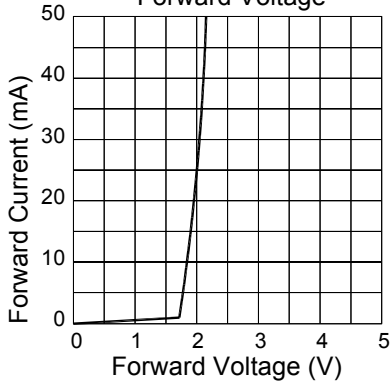


Fig.3 Relative Luminous Intensity VS. Ambient Temperature

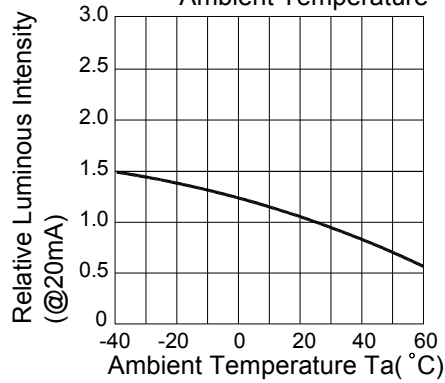


Fig.4 Relative Luminous Intensity VS. Forward Current

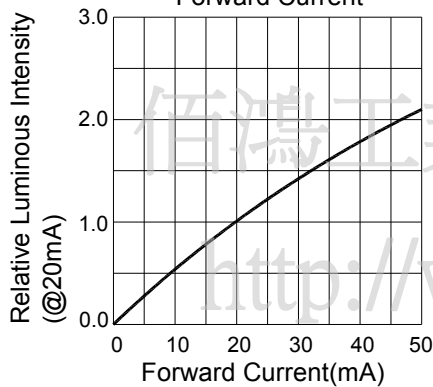
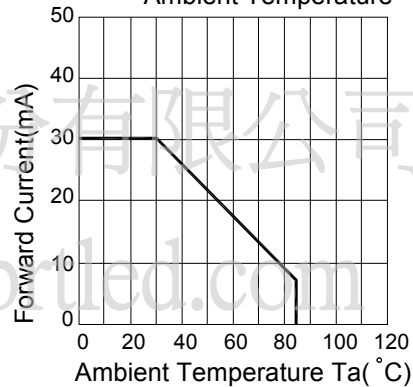


Fig.5 Forward Current Derating Curve VS. Ambient Temperature

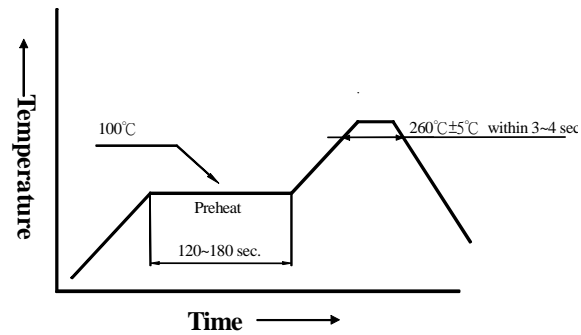


## ● DIP soldering (Wave Soldering)

Preheating : 100°C, within 120~180 sec.

Operation heating : 260°C±5°C within 3~4 sec.

Gradual Cooling (Avoid quenching).



## ● IRON soldering

350°C with 4~5 sec.

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