

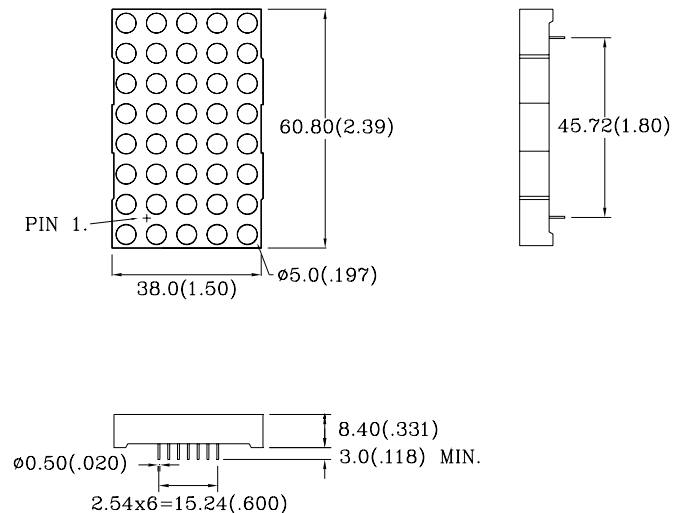
● Features :

1. 2.394 inch (60.8mm) matrix height.
2. Dot size 5.00mm.
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-20658NA is a 60.8mm(2.394") matrix height 5×8 dot matrix display.
2. This product use super red chips, which are made from AlGaAs on GaAs substrate.
3. This product have a black face and Water clear dots.
4. This product doesn't contain restriction substance, comply ROHS standard.

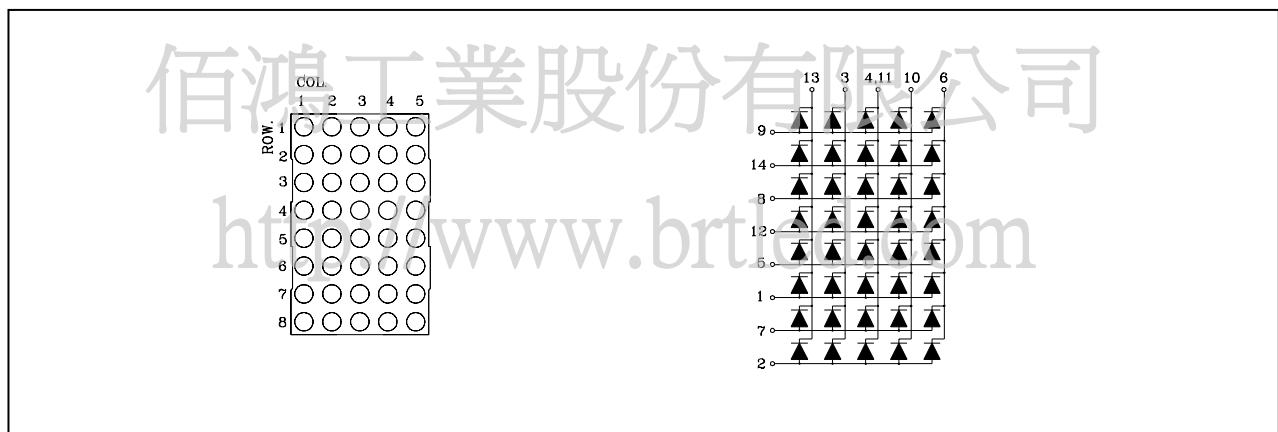
● Package Dimensions :



Notes:

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

● Internal Circuit Diagram :



● Absolute Maximum Ratings($T_a=25^{\circ}\text{C}$)

Parameter	Symbol	Rating	Unit
Power Dissipation Per Dot	P_d	80	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	T_{opr}	$-40^{\circ}\text{C} \sim 80^{\circ}\text{C}$	-
Storage Temperature	T_{stg}	$-40^{\circ}\text{C} \sim 85^{\circ}\text{C}$	-
Soldering Temperature (1/16" From Body)	T_{sol}	260°C For 5 Seconds	-

● Electrical And Optical Characteristics($T_a=25^{\circ}\text{C}$)

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Forward Voltage Per Dot	V_F	$I_F=10\text{mA}$	-	1.7	2.5	V
Luminous Intensity Per Dot	I_v	$I_F=10\text{mA}$	-	22	-	mcd
Reverse Current Per Dot	I_R	$V_R=5\text{V}$	-	-	100	μA
Peak Wave Length	λ_p	$I_F=10\text{mA}$	-	660	-	nm
Dominant Wave Length	λ_d	$I_F=10\text{mA}$	638	-	648	nm
Spectral Line Half-width	$\Delta \lambda$	$I_F=10\text{mA}$	-	20	-	nm

● Typical Electro-Optical Characteristics Curves

(25°C Ambient Temperature Unless Otherwise Noted)

Fig.1 Relative Radiant Intensity VS. Wavelength

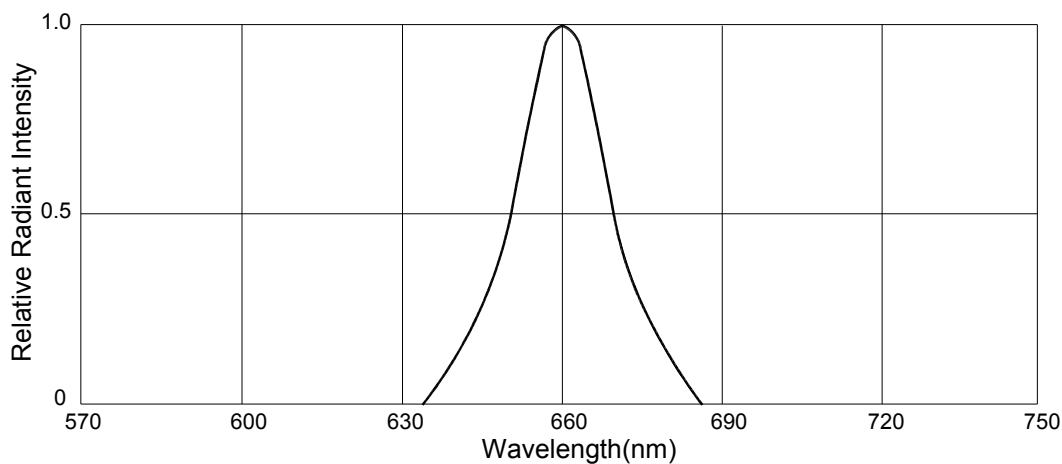


Fig.2 Forward Current VS. Forward Voltage

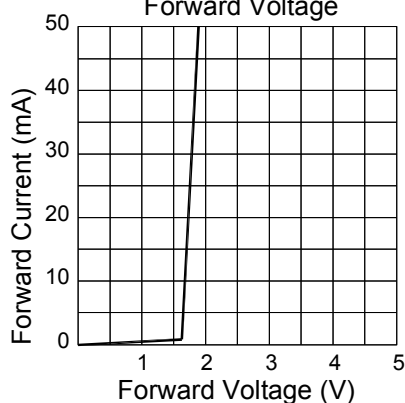


Fig.3 Relative Luminous Intensity VS. Ambient Temperature

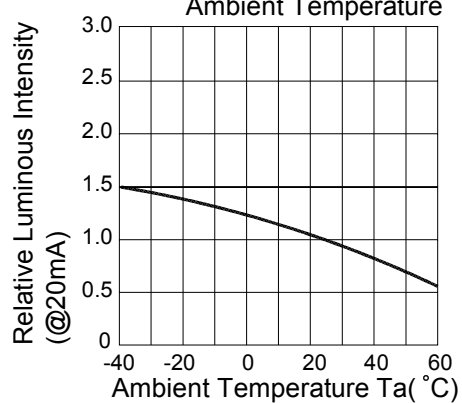


Fig.4 Relative Luminous Intensity VS. Forward Current

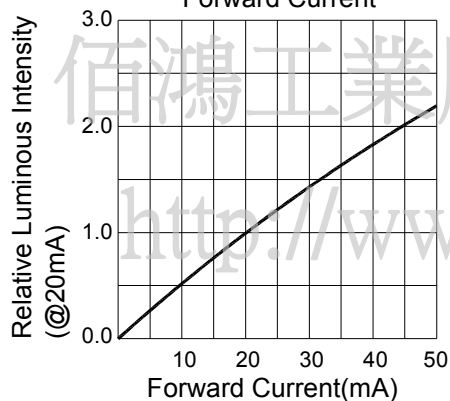


Fig.5 Forward Current Derating Curve VS. Ambient Temperature

