## WH16020 Character 16x2

## Dimension drawing



## Feature

1. $5 \times 8$ dots includes cursor
2. Built-in controller (KS0066 or Equivalent)
3. +5 V power supply
4. $1 / 16$ duty cycle
5. Optional:smaller character size ( $2.95 \times 4.35 \mathrm{~mm}$ )

| Pin | Symbol | Function |
| :---: | :--- | :--- |
| NO. |  |  |
| 1 | DB7 | Data bus line |
| 2 | DB6 | Data bus line |
| 3 | DB5 | Data bus line |
| 4 | DB4 | Data bus line |
| 5 | DB3 | Data bus line |
| 6 | DB2 | Data bus line |
| 7 | DB1 | Data bus line |
| 8 | DB0 | Data bus line |
| 9 | E | H $\rightarrow$ L Enable signal |
| 10 | R/W | H/L Read/Write signal |
| 11 | RS | H/L Register select signal |
| 12 | Vo | Contrast Adjustment |
| 13 | Vss | GND |
| 14 | Vdd | Power Supply(+5V) |

MecFanical Data

| Item | Standard Value | Unit |
| :---: | :---: | :---: |
| Module Dimension | $85.0 \times 25.2$ | mm |
| Viewing Area | $66.0 \times 16.0$ | mm |
| Mounting hole | $80.3 \times 22.0$ | mm |
| Character Size | $2.95 \times 5.55$ | mm |

Absolute Maximum Rating

| Item | Symbol | Standard Value |  |  | Unit |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | min. | typ. | max. |  |
| Power Supply | VDD-VSS | -0.3 | --- | 7.0 | V |
| Input Voltage | VI | -0.3 | --- | VDD | V |

Note : VSS=0 Volt, VDD=5.0 Volt.
Electronical Characteristics

| Item | Symbol | Condition |  | Standard Value |  |  | Unit |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | min. | typ. | max |  |
| Input Voltage | VDD | $\mathrm{VDD}=+5 \mathrm{~V}$ |  | 4.7 | 5.0 | 5.3 | V |
| Supply Current | IDD | $\mathrm{VDD}=5 \mathrm{~V}$ |  | --- | 1.2 | 1.5 | m |
| ecommended LC Driving <br> Voltage for Normal Temp. <br> Version module | VDD-Vo | -20 |  | --- | --- | 5.2 | V |
|  |  |  |  | --- | --- | 4.2 |  |
|  |  | 25 |  | --- | 3.8 | --- |  |
|  |  |  |  | 3.5 | --- | --- |  |
|  |  |  |  | 3.2 | --- | --- |  |
| LED Forward Voltage | VF |  |  | --- | 4.2 | 4.6 | V |
| LED Forward Current | IF | $25^{\circ} \mathrm{C}$ | Array | --- | 100 | --- | mA |
| LEDForward Current |  |  | Edge | --- | 20 | 40 |  |
| EL Power Supply Current | IEL | $\mathrm{Ve}=110 \mathrm{~V}$ | $\mathrm{C} ; 40 \mathrm{~Hz}$ | --- | --- | 5.0 | mA |

## Display Character Address Code:

Display position $\begin{array}{llllllllllllllll}1 & 2 & 3 & 4 & 5 & 6 & 7 & 8 & 9 & 10 & 11 & 12131415 & 16\end{array}$ DD RAM Address 0001 DD RAM Address 4041 $\qquad$ -----

