1.DINENSION OUTLINE


## 2.MECHANICAL SPECIFICATIONS

| ITEM | SPECIFICATIONS | ITEM | REMARK |
| :--- | :---: | :---: | :---: |
| Modeule Size $(\mathrm{L} \times \mathrm{W} \times \mathrm{H})$ | $80.0 \times 36.0 \times 9.5$ | mm |  |
| View Area $(\mathrm{W} \times \mathrm{H})$ | $64.5 \times 13.8$ | mm | Reference <br> Dimensional <br> Outline |
| Effective V/Area | $59.45 \times 5.95$ | mm |  |
| Number of Characters | $16 \mathrm{CH} \times 1$ Line | - |  |
| Character Size $(\mathrm{WxH})$ | $3.20 \times 5.95$ | mm |  |
| Dot Size $(\mathrm{W} \times \mathrm{H})$ | $0.60 \times 0.70$ | mm |  |
| Weight $($ Reflective $/$ Led $)$ | - | g |  |

## 4.BLOCK DIAGRAMMECHANICAL



## 6. INTERFACE PIN CONNECTIONS

| ITEM | SYMBOL | LEVEL | FUNCTIONS |
| :---: | :---: | :---: | :---: |
| 1 | VSS | - | Power Supply For Logic |
| 2 | VDD | - | Power Ground |
| 3 | V0 | - | Contrast adjust |
| 4 | RS | H/L | H:data L:command |
| 5 | R/W | H/L | H:read L:write |
| 6 | E | H. H $\rightarrow \mathrm{L}$ | Enable singnal |
| $7-14$ | DB0-DB7 | H/L | Data Bus |
| 15 | LEDA | +5 V | Power supply For LED Backlight |
| 16 | LEDK | 0 V |  |

## 3.ABSOLUTE MAXIMUM RATINGS

| ITEM | SYMBOL | CONDITION | STANDARD |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  | MIN | MAX |
| Logic Voltage | VDD | $\mathbf{T a}=25^{\circ} \mathrm{C}$ | -0.3V | 7 V |
| LCD Voltage | VLCD |  | -0.3V | 13 V |
| Input Voltage | VI |  | -0.3V | Vdd +0.3 V |
| Operation Temperature | Top | - | $-20^{\circ} \mathrm{C}$ | $70{ }^{\circ} \mathrm{C}$ |
| Storage Temperature | Vop | - | $-30^{\circ} \mathrm{C}$ | $80^{\circ} \mathrm{C}$ |

## 5.LED BACKLIGHT SPECIFICATIONS

| ITEM | SYMBOL | TYPE | MAX | UNIT |
| :--- | :---: | :--- | :---: | :---: |
| Ta $=\mathbf{2 5}{ }^{\circ} \mathrm{C}$ |  |  |  |  |
| Forward Voltage | $\mathrm{Vf}_{\mathrm{f}}$ | 4.1 | 4.3 | V |
| Forward Current | If | 110 | - | mA |
| Emission Vave Length | $\lambda_{\mathrm{P}}$ | 568 | - | nm |

## 7. ELECTRICAL CHARACTERISTICS

| ITEM | SYMBOL | MIN | TYPE | MAX | UNIT |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Ta $=25^{\circ} \mathrm{C}$ |  |  |  |  |  |
| Logic Power | VdD | 4.5 | 5 | 5.5 | V |
| Input High Voltage | VIH | 2.2 | - | VDD | V |
| Input Low Voltage | VIL | -0.3 | - | 0.8 | V |
| Output High Voltage | Voh | 2.4 | - | Vdd | V |
| Output Low Voltage | VoL | 0 | - | 0.4 | V |
| Logic Current | IdD | - | 1.2 | 3.0 | mA |
| Operation Voltage For LCD | Vod-Vo | - | 4.6 | - | V |
|  |  |  |  |  |  |

