OUTLINE DIMENSION \& BLOCK DIAGRAM


The tolerance unless classified $\pm 0.3 \mathrm{~mm}$

| MECHANICAL SPECIFICATION |  |  |  |
| :---: | :---: | :---: | :---: |
| Overall Size | $42.0 \times 39.9$ | Module | $\mathrm{H} 2 / \mathrm{H} 1$ |
| View Area | $36.0 \times 21.0$ | W /O B/L | $-/-$ |
| Dot Size | $0.28 \times 0.39$ | EL B/L | $-/-$ |
| Dot Pitch | $0.32 \times 0.43$ | LED B/L | $3.9 / 4.7$ |


| PIN ASSIGNMENT |  |  |
| :---: | :---: | :--- |
| Pin no. | Symbol | Function |
| 1 | Vss | Power supply(GND) |
| 2 | Vdd | Power supply(+) |
| 3 | Vo | Contrast Adjust |
| 4 | A0 | Command / data input |
| 5 | WR | Data write / (R/W) |
| 6 | RD | Data read / (E) |
| $7-14$ | DB0-DB7 | Data bus line |
| 15 | CS1 | Chip select |
| 16 | RES | Reset |
| 17 | Vee | Negative voltage |
| 18 | NC | No Connection |
| 19 | A | Power supply for LED B/L (+) |
| 20 | K | Power supply for LED B/L (-) |


| ABSOLUTE MAXIMUM RATING |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Item | Symbol | Condition |  | Min. |  | Max. |  |  | Units |
| Supply for logic voltage | Vdd-Vss | $25^{\circ} \mathrm{C}$ |  | -0.3 |  | 7.0 |  |  | V |
| LCD driving supply voltage | Vdd-Vee | $25^{\circ} \mathrm{C}$ |  | -0.3 |  | 18.0 |  |  | V |
| Input voltage | Vin | $25^{\circ} \mathrm{C}$ |  | -0.3 |  | Vdd+0.3 |  |  | V |
| ELECTRICAL CHARACTERISTICS |  |  |  |  |  |  |  |  |  |
| Item | Symbol | Condition | Min. |  | Typical |  | Max. |  | Units |
| Power supply voltage | Vdd-Vss | $25^{\circ} \mathrm{C}$ | 2.7 |  | - |  | 5.5 |  | V |
| LCD operation voltage | Vop | Top | N W |  | N W |  | N W |  | V |
|  |  | $-20^{\circ} \mathrm{C}$ | - | - | - | - | - | - | V |
|  |  | $0^{\circ} \mathrm{C}$ | - | - | - | - | - | - | V |
|  |  | $25^{\circ} \mathrm{C}$ | - | - | - | 6.5 | - | - | V |
|  |  | $50^{\circ} \mathrm{C}$ | - | - | - | - | - | - | V |
|  |  | $70^{\circ} \mathrm{C}$ | - | - | - | - | - | - | V |
| LCM current consumption (No B/L) | Idd | $\mathrm{Vdd}=5 \mathrm{~V}$ | - |  | 0.5 |  | 1 |  | mA |
| Backlight current consumption | LED/edge | $\mathrm{VB} / \mathrm{L}=2.1 \mathrm{~V}$ | - |  | 40 |  | - |  | mA |
|  | LED/array | $\mathrm{VB} / \mathrm{L}=4.2 \mathrm{~V}$ | - |  | - |  | - |  | mA |

