



The tolerance unless classified  $\pm 0.3$ mm

| MECHANICAL SPECIFICATION |             |          |            |  |  |  |  |  |
|--------------------------|-------------|----------|------------|--|--|--|--|--|
| Overall Size             | 77.0 x 47.0 | Module   | H2 / H1    |  |  |  |  |  |
| View Area                | 60.0 x 22.2 | W /O B/L | 5.0 / 9.6  |  |  |  |  |  |
| Dot Size                 | 0.42 x 0.46 | EL B/L   | 5.0 / 9.6  |  |  |  |  |  |
| Dot Pitch                | 0.47 x 0.51 | LED B/L  | 9.6 / 14.2 |  |  |  |  |  |
|                          |             |          |            |  |  |  |  |  |

| PIN ASSIGNMENT |        |                              |  |  |  |  |
|----------------|--------|------------------------------|--|--|--|--|
| Pin no.        | Symbol | Function                     |  |  |  |  |
| 1              | Vss    | Power supply(GND)            |  |  |  |  |
| 2              | Vdd    | Power supply(+)              |  |  |  |  |
| 3              | Vo     | Contrast Adjust              |  |  |  |  |
| 4              | RS     | Register select signal       |  |  |  |  |
| 5              | R/W    | Data read / write            |  |  |  |  |
| 6              | Е      | Enable signal                |  |  |  |  |
| 7              | DB0    | Data bus line                |  |  |  |  |
| 8              | DB1    | Data bus line                |  |  |  |  |
| 9              | DB2    | Data bus line                |  |  |  |  |
| 10             | DB3    | Data bus line                |  |  |  |  |
| 11             | DB4    | Data bus line                |  |  |  |  |
| 12             | DB5    | Data bus line                |  |  |  |  |
| 13             | DB6    | Data bus line                |  |  |  |  |
| 14             | DB7    | Data bus line                |  |  |  |  |
| 15             | Α      | Power supply for LED B/L (+) |  |  |  |  |
| 16             | K      | Power supply for LED B/L (-) |  |  |  |  |

| ABSOLUTE MAXIMUM RATING          |             |           |                   |      |      |       |      |         |             |       |
|----------------------------------|-------------|-----------|-------------------|------|------|-------|------|---------|-------------|-------|
| Item                             | Symbol      |           | Condition         |      | Min. |       |      | Max.    |             | Units |
| Supply for logic voltage         | Vdd-Vss     |           | 25°C              |      | -0.3 |       |      | 7       |             | >     |
| LCD driving supply voltage       | Vdd-Vee     |           | 25°C              |      | -0.3 |       |      | 13      |             | >     |
| Input voltage                    | Vin         |           | 25 <sup>o</sup> 0 | C -C |      | ۱ 3.0 |      | Vdd+0.3 |             | >     |
| ELECTRICAL CHARACTERISTICS       |             |           |                   |      |      |       |      |         |             |       |
| Item                             | Symbol      | Сс        | ndition           | M    | lin. | Тур   | ical | IV      | lax.        | Units |
| Power supply vlotage             | Vdd-Vss     | 25°C      |                   | 2.   | 2.7  |       | - 0  |         | <b>5.</b> 5 |       |
| LCD operation voltage            | Vop         |           | Top               |      | W    | Z     | >    | Ν       | W           | V     |
|                                  |             | -20°C     |                   | _    | 7.4  |       | 7.8  | _       | 8.2         | V     |
|                                  |             |           | 0°C               |      | .0   | 5.2   | ı    | 5.5     | _           | V     |
|                                  |             | 25°C      |                   | 4.5  | 6.4  | 4.8   | 6.7  | 5.1     | 7           | V     |
|                                  |             |           | 50°C              | 4.1  | _    | 4.4   | -    | 4.7     | _           | ٧     |
|                                  |             |           | 70°C              | _    | 6    | -     | 6.3  | _       | 6.6         | V     |
| LCM current consumption (No B/L) | ldd         | Vdd=5V    |                   | _    |      | 2.5   |      | 4       |             | mA    |
| Backlight current consumption    | LED/edge VB |           | /L=4.2V           | _    |      | _     |      | _       |             | mA    |
| Backlight current consumption    | LED/array   | VB/L=4.2V |                   | _    |      | 150   |      | _       |             | mA    |