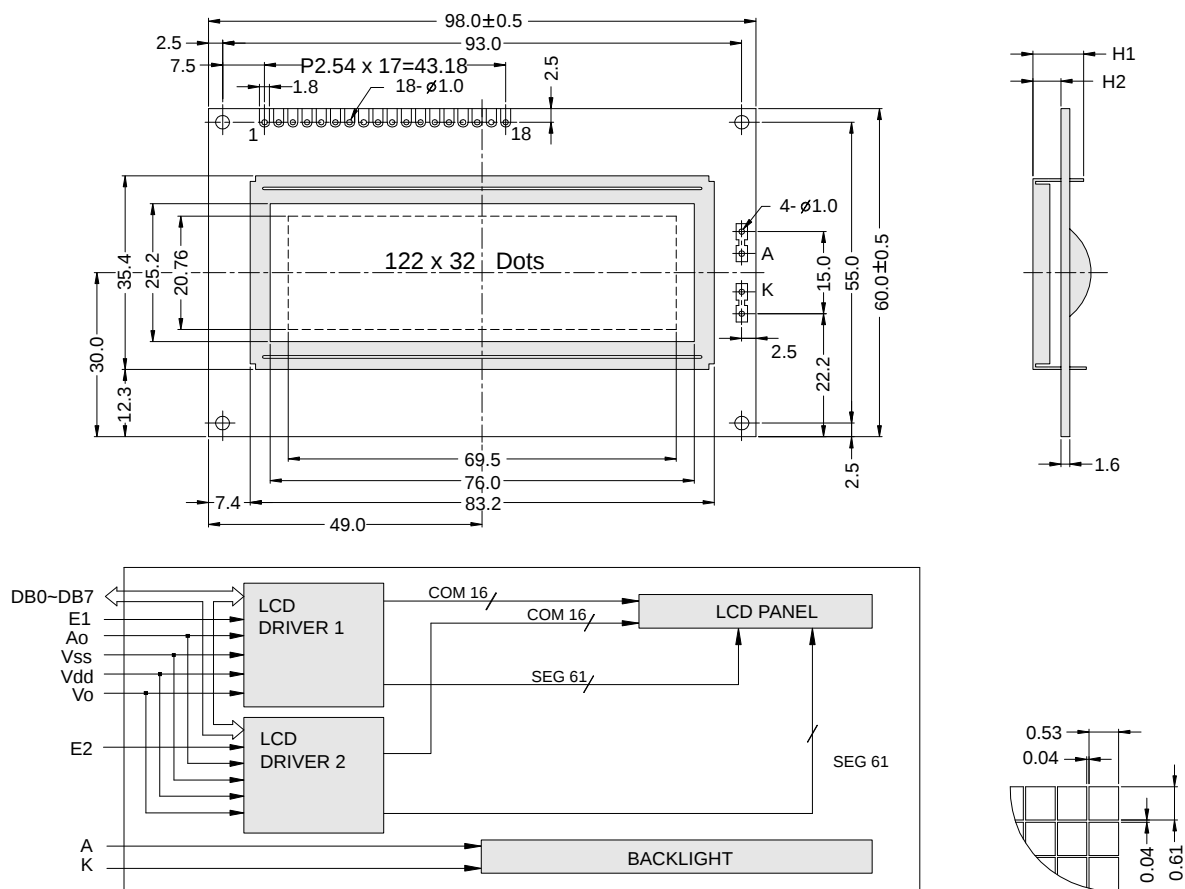


**OUTLINE DIMENSION & BLOCK DIAGRAM**



The tolerance unless classified ± 0.3mm

| MECHANICAL SPECIFICATION |             |           |            |
|--------------------------|-------------|-----------|------------|
| Overall Size             | 98.0 x 60.0 | Module    | H2 / H1    |
| View Area                | 76.0 x 25.2 | W / O B/L | 5.0 / 9.1  |
| Dot Size                 | 0.53 x 0.61 | EL B/L    | - / -      |
| Dot Pitch                | 0.57 x 0.65 | LED B/L   | 9.4 / 13.5 |

| PIN ASSIGNMENT |          |                              |
|----------------|----------|------------------------------|
| Pin no.        | Symbol   | Function                     |
| 1              | Vss      | Power supply(GND)            |
| 2              | Vdd      | Power supply(+)              |
| 3              | Vo       | Contrast Adjust              |
| 4              | Ao       | Command / data select        |
| 5              | E1       | Enable driver 1              |
| 6              | E2       | Enable driver 2              |
| 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             | A        | Power supply for LED B/L (+) |
| 16             | K        | Power supply for LED B/L (-) |
| 17             | N.C      | No connection                |
| 18             | N.C(R/W) | No connection (R/W)          |

| ABSOLUTE MAXIMUM RATING          |           |           |      |     |         |     |       |     |       |
|----------------------------------|-----------|-----------|------|-----|---------|-----|-------|-----|-------|
| Item                             | Symbol    | Condition | Min. |     | Max.    |     | Units |     |       |
| Supply for logic voltage         | Vdd-Vss   | 25°C      | -0.3 |     | 8.0     |     | V     |     |       |
| LCD driving supply voltage       | Vdd-Vee   | 25°C      | -0.3 |     | 16.5    |     | V     |     |       |
| Input voltage                    | Vin       | 25°C      | -0.3 |     | Vdd+0.3 |     | V     |     |       |
| ELECTRICAL CHARACTERISTICS       |           |           |      |     |         |     |       |     |       |
| Item                             | Symbol    | Condition | Min. |     | Typical |     | Max.  |     | Units |
| Power supply voltage             | Vdd-Vss   | 25°C      | 2.7  |     | —       |     | 5.5   |     | V     |
| LCD operation voltage            | Vop       | Top       | N    | W   | N       | W   | N     | W   | V     |
|                                  |           | -20°C     | —    | 7.2 | —       | 7.4 | —     | 6.9 | V     |
|                                  |           | 0°C       | 4.9  | —   | 5.1     | —   | 4.6   | —   | V     |
|                                  |           | 25°C      | 4.5  | 6.2 | 4.7     | 6.4 | 4.2   | 5.9 | V     |
|                                  |           | 50°C      | 3.5  | —   | 3.7     | —   | 3.3   | —   | V     |
|                                  |           | 70°C      | —    | 5.6 | —       | 5.8 | —     | 5.4 | V     |
| LCM current consumption (No B/L) | Idd       | Vdd=5V    | —    |     | 1.0     |     | 2.5   |     | mA    |
| Backlight current consumption    | LED/edge  | VB/L=4.2V | —    |     | —       |     | —     |     | mA    |
|                                  | LED/array | VB/L=4.2V | —    |     | 260     |     | —     |     | mA    |

**REMARK**

LCD option: STN, TN, FSTN

Backlight Option: LED, EL Backlight feature, other Specs not available on catalog is under request.

