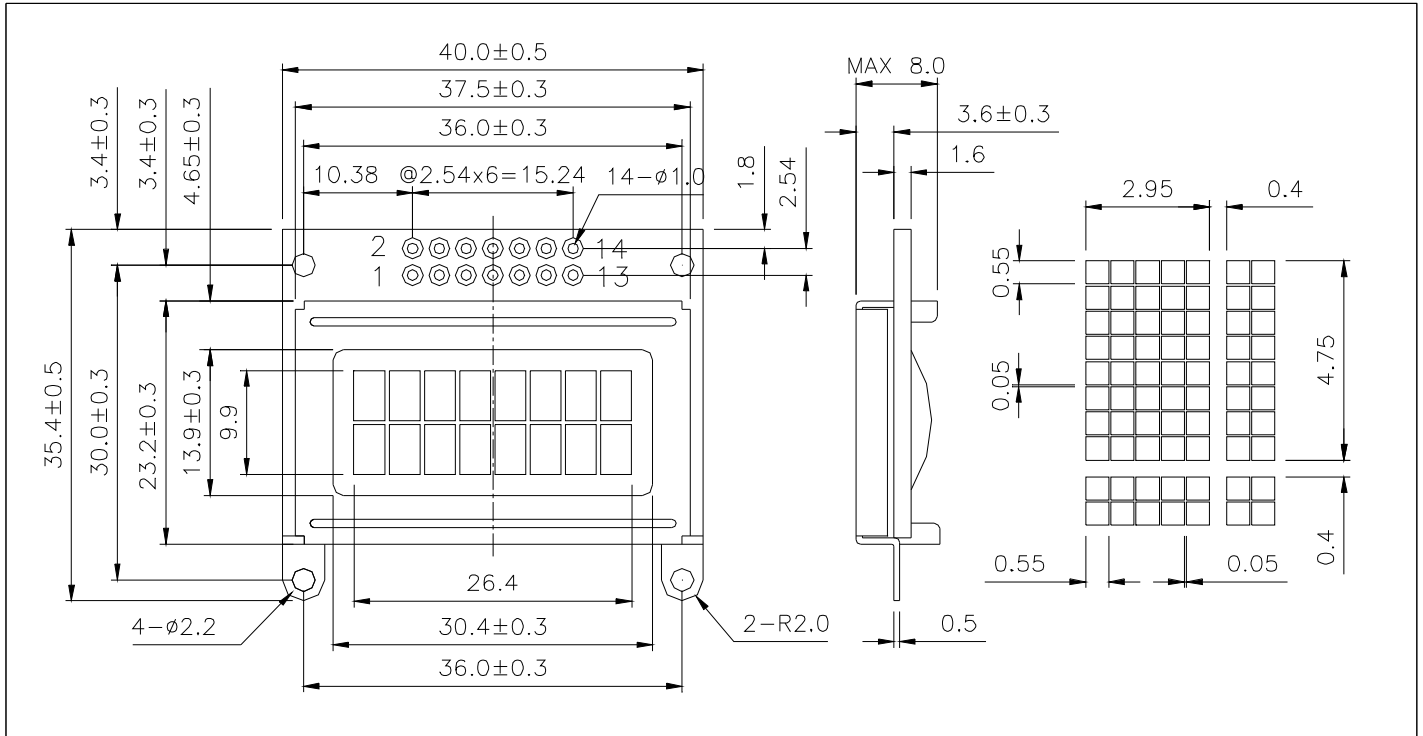


# LC082H1 8 characters x 2 lines



## ABSOLUTE MAXIMUM RATINGS

| Item                  | Symbol            | Min. | Max.           | Unit |
|-----------------------|-------------------|------|----------------|------|
| Supply Voltage(Logic) | $V_{DD} - V_{SS}$ | -0.3 | 7.0            | V    |
| Supply Voltage(LCD)   | $V_{DD} - V_o$    | -0.3 | 13.0           | V    |
| Input Voltage         | $V_i$             | -0.3 | $V_{DD} + 0.3$ | V    |
| Operating Temp.       | $T_{opr}$         | -20  | 70             | °C   |
| Storage Temp.         | $T_{stg}$         | -30  | 80             | °C   |

## MECHANICAL DATA

| Item                    | Nominal Dimensions | Unit |
|-------------------------|--------------------|------|
| Module Size (W x H x T) | 40.0 x 35.4 x 8.0  | mm   |
| Viewing Area (W x H)    | 30.4 x 13.9        | mm   |
| Character Size (W x H)  | 2.95 x 4.75        | mm   |
| Dot Size (W x H)        | 0.55 x 0.55        | mm   |
| Weight                  | Approx. 12         | g    |

## ELECTRICAL CHARACTERISTICS ( $V_{DD}=5V \pm 0.25V$ )

| Item                | Symbol         | Test Condition     | Min. | Typ. | Max.     | Unit |
|---------------------|----------------|--------------------|------|------|----------|------|
| Input High Voltage  | $V_{IH}$       | --                 | 2.2  | --   | $V_{DD}$ | V    |
| Input Low Voltage   | $V_{IL}$       | --                 | -0.3 | --   | 0.6      | V    |
| Output High Voltage | $V_{OH}$       | $I_{OH} = -0.2mA$  | 2.4  | --   | $V_{DD}$ | V    |
| Output Low Voltage  | $V_{OL}$       | $I_{OL} = 1.2mA$   | 0    | --   | 0.4      | V    |
| Supply Current      | $I_{DD}$       | $V_{DD} = 5.0V$    | --   | 1.8  | 2.2      | mA   |
| LCD Driving Voltage | $V_{DD} - V_o$ | $T_a = 25^\circ C$ | --   | 4.4  | --       | V    |

## PIN CONNECTIONS

| Pin | Symbol   | Level  | Function  |
|-----|----------|--------|---|
| 1   | $V_{SS}$ | 0V     | GND   |
| 2   | $V_{DD}$ | +5V    | Power supply for logic  |
| 3   | $V_o$    | --     | Operating voltage for LCD   |
| 4   | RS       | H/L    | H : Data<br>L : Instruction code  |
| 5   | R/W      | H/L    | H : Read<br>L : Write   |
| 6   | E        | H, H>L | Enable signal   |
| 7   | DB0      | H/L    | In 8-bit bus mode, used as low order bidirectional data bus.<br>In 4-bit bus mode, open these pins.                           |
| 8   | DB1      | H/L    |   |
| 9   | DB2      | H/L    |   |
| 10  | DB3      | H/L    |   |
| 11  | DB4      | H/L    | In 8-bit bus mode, used as high order bidirectional data bus.<br>In 4-bit bus mode, used as both high and low order data bus. |
| 12  | DB5      | H/L    |   |
| 13  | DB6      | H/L    |   |
| 14  | DB7      | H/L    |   |

## BLOCK DIAGRAM

