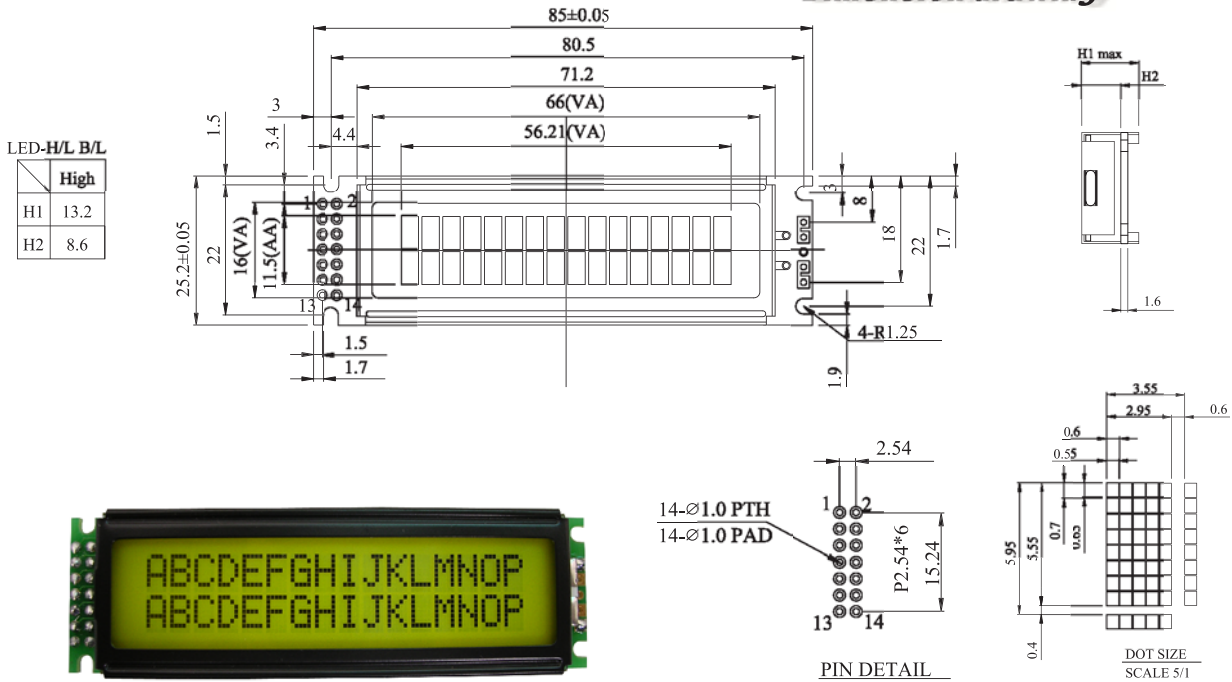




**WH1602P** Character 16x2

**Dimension drawing**



**Feature**

1. 5x8 dots includes cursor
2. Built-in controller (KS0066 or Equivalent)
3. +5V power supply
4. 1/16 duty cycle

**Mechanical Data**

| Item             | Standard Value | Unit |
|------------------|----------------|------|
| Module Dimension | 85.0x25.2      | mm   |
| Viewing Area     | 66.0x16.0      | mm   |
| Mounting hole    | 80.5x22.0      | mm   |
| Character Size   | 2.95x5.55      | mm   |

| Pin NO. | Symbol | Function                   |
|---------|--------|----------------------------|
| 1       | DB7    | Data bus line              |
| 2       | DB6    | Data bus line              |
| 3       | DB5    | Data bus line              |
| 4       | DB4    | Data bus line              |
| 5       | DB3    | Data bus line              |
| 6       | DB2    | Data bus line              |
| 7       | DB1    | Data bus line              |
| 8       | DB0    | Data bus line              |
| 9       | E      | H→L Enable signal          |
| 10      | R/W    | H/L Read/Write signal      |
| 11      | RS     | H/L Register select signal |
| 12      | Vo     | Contrast Adjustment        |
| 13      | Vss    | GND                        |
| 14      | Vdd    | Power Supply(+5V)          |

**Absolute Maximum Rating**

| Item          | Symbol  | Standard Value |      |      | Unit |
|---------------|---------|----------------|------|------|------|
|               |         | min.           | typ. | max. |      |
| Power Supply  | VDD-VSS | -0.3           | ---  | 7.0  | V    |
| Input Voltage | VI      | -0.3           | ---  | VDD  | V    |

Note : VSS=0 Volt, VDD=5.0 Volt.

**Electronical Characteristics**

| Item   | Symbol | Condition        | Standard Value |      |      | Unit |    |
|--|--------|------------------|----------------|------|------|------|----|
|  |        |                  | min.           | typ. | max. |      |    |
| Input Voltage  | VDD    | VDD=+5V          | 4.7            | 5.0  | 5.3  | v    |    |
| Supply Current   | IDD    | VDD=5V           | ---            | 1.2  | 1.5  | mA   |    |
| Recommended LC Driving Voltage for Normal Temp. Version module | VDD-V0 | -20°C            | ---            | ---  | 5.3  | V    |    |
|  |        | 0°C              | 4.7            | 4.8  | 4.9  |      |    |
|  |        | 25°C             | 4.6            | 4.7  | 4.8  |      |    |
|  |        | 50°C             | 4.3            | 4.4  | 4.6  |      |    |
|  |        | 70°C             | 4.1            | 4.2  | 4.4  |      |    |
| LED Forward Voltage  | VF     | 25°C             | ---            | 4.2  | 4.6  | V    |    |
| LED Forward Current  | IF     | 25°C             | Array          | ---  | 130  | 260  | mA |
|  |        |                  | Edge           | ---  | 20   | 40   |    |
| EL Power Supply Current  | IEL    | Vel=110VAC;400Hz | ---            | ---  | 5.0  | mA   |    |

**Display Character Address Code :**

|                  |    |    |   |   |   |   |   |   |   |    |    |    |    |    |    |    |
|------------------|----|----|---|---|---|---|---|---|---|----|----|----|----|----|----|----|
| Display position | 1  | 2  | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| DD RAM Address   | 00 | 01 |   |   |   |   |   |   |   |    |    |    |    |    |    | 0F |
| DD RAM Address   | 40 | 41 |   |   |   |   |   |   |   |    |    |    |    |    |    | 4F |



Character type