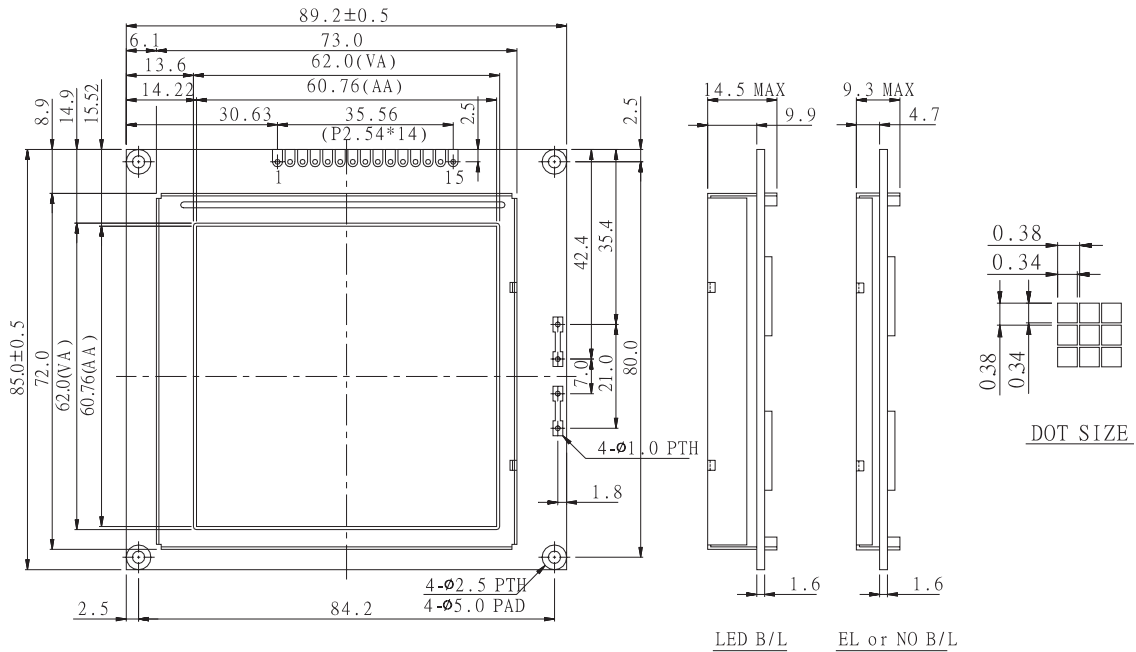


**WG160160A** Graphic 160x160dots

**Dimension drawing**



Graphic type

**Feature**

1. No controller
2. +5V power supply
3. 1/160 duty cycle

| Pin NO. | Symbol  | Function   |
|---------|---------|--|
| 1       | Vss     | Ground   |
| 2       | M       | Control Signal for A.C. Driving                              |
| 3       | FLM     | The FLM signal indicates the beginning of each display cycle |
| 4       | CL1     | The CL1 latches the serial data in shift register            |
| 5       | CL2     | Clock signal for shifting the serial data                    |
| 6       | DB3     | Data bus line  |
| 7       | DB2     | Data bus line  |
| 8       | DB1     | Data bus line  |
| 9       | DB0     | Data bus line  |
| 10      | Vee     | Power supply for LCD driving                                 |
| 11      | Vdd     | Power supply (+5V)   |
| 12      | Vo      | Contrast Adjustment  |
| 13      | DISPOFF | Controls display off, 0: off, 1: on                          |
| 14      | A       | Power supply for   |
| 15      | K       | Power supply for   |

**Mechanical Data**

| Item             | Standard Value | Unit |
|------------------|----------------|------|
| Module Dimension | 89.2x85.0      | mm   |
| Viewing Area     | 62.0x62.0      | mm   |
| Dot Size         | 0.34x0.34      | mm   |
| Dot Pitch        | 0.38x0.38      | mm   |
| Mounting hole    | 84.2x 80.0     | mm   |

**Absolute Maximum Rating**

| Item          | Symbol  | Standard Value |      |      | Unit |
|---------------|---------|----------------|------|------|------|
|               |         | min.           | typ. | max. |      |
| Power Supply  | VDD-VSS | 4.75           | 5.0  | 5.52 | V    |
| Input Voltage | VI      | -0.3           | ---  | VDD  | V    |

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

**Electrical Characteristics**

| Item   | Symbol | Condition        | Standard Value     |      |                    | Unit |
|--|--------|------------------|--------------------|------|--------------------|------|
|  |        |                  | min.               | typ. | max.               |      |
| Input Voltage  | VDD    | L level          | 0.7V <sub>DD</sub> | ---  | V <sub>DD</sub>    | V    |
|  | VIO    | H level          | ---                | ---  | 0.3V <sub>DD</sub> | V    |
| Supply Current   | IDD    | VDD=5V           | ---                | 1.5  | 3                  | mA   |
| Recommended LC Driving Voltage for Normal Temp. Version module | VDD-V0 | -20°C            | 16.5               | 18.0 | 19.5               | V    |
|  |        | 0°C              | 16.3               | 17.8 | 19.3               |      |
|  |        | 25°C             | 15.5               | 17.0 | 18.5               |      |
|  |        | 50°C             | 14.5               | 16.0 | 17.5               |      |
|  |        | 70°C             | 14.3               | 15.8 | 17.3               |      |
| LED Forward Voltage  | VF     | 25°C             | ---                | 4.2  | 4.6                | V    |
| LED Forward Current  | IF     | 25°C             | ---                | 500  | 1000               | mA   |
| EL   | IEL    | Vel=110VAC;400Hz | ---                | ---  | 5.0                | mA   |