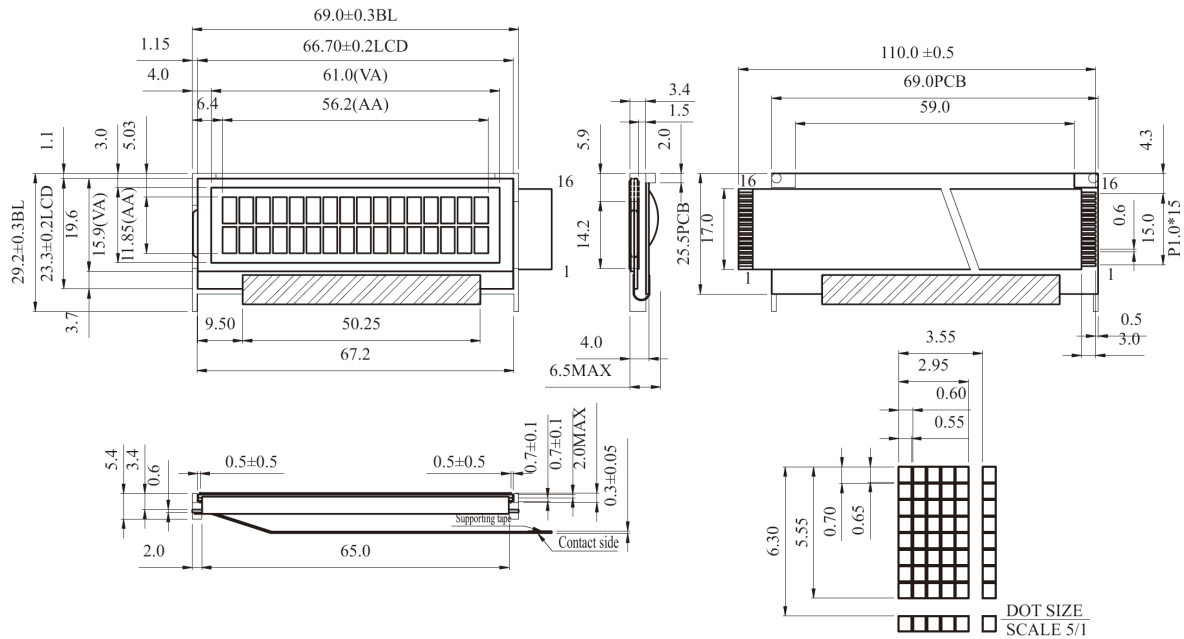


**Dimension drawing**



**Feature**

1. 5x8 dots includes cursor
2. Built-in controller (ST 7066 or Equivalent)
3. +5.0V power supply
4. 1/16 duty cycle

**Mechanical Data**

| Item             | Standard Value | Unit |
|------------------|----------------|------|
| Module Dimension | 69.0x29.2      | mm   |
| Viewing Area     | 61.0x15.9      | mm   |
| LCD size         | 66.7x23.3      | mm   |
| Character Size   | 2.95x5.55      | mm   |

| Pin NO. | Symbol | Function                   |
|---------|--------|----------------------------|
| 1       | VSS    | Ground                     |
| 2       | VDD    | Supply voltage for logic   |
| 3       | VO     | Contrast Adjustment        |
| 4       | RS     | H: Data L: Instruction     |
| 5       | R/W    | H: read data L: write data |
| 6       | E      | 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      | A      | LED +                      |
| 16      | K      | LED -                      |

**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    | ---              | 4.7            | 5.0  | 5.3  | V    |
| Supply Current   | IDD    | VDD=5V           | ---            | 1.0  | 1.2  | mA   |
| Recommended LC Driving Voltage for Normal Temp. Version module | VDD-VO | -20°C            | 5.0            | 5.1  | 5.7  | V    |
|  |        | 0°C              | 4.6            | 4.8  | 5.2  |      |
|  |        | 25°C             | 4.1            | 4.5  | 4.7  |      |
|  |        | 50°C             | 3.9            | 4.2  | 4.5  |      |
|  |        | 70°C             | 3.7            | 3.9  | 4.3  |      |
| LED Forward Voltage  | VF     | 25°C             | ---            | ---  | ---  | V    |
| LED Forward Current  | IF     | 25°C             | ---            | ---  | ---  | mA   |
| EL Power Supply Current  | IEF    | Vel=110VAC,400Hz | ---            | ---  | ---  | mA   |