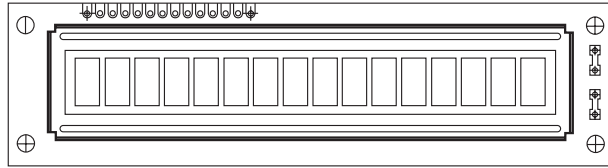


# 16 x 1 Character LCD


**FEATURES**

- 5 x 8 dots includes cursor
- Built - in controller (KS 0066 or Equivalent)
- + 5V power supply (Also available for + 3V)
- 1/16 duty cycle
- LED can be driven by pin 1, pin 2, pin 15 or A and K
- N.V. optional for + 3V power supply

| MECHANICAL DATA  |                |      |
|------------------|----------------|------|
| ITEM             | STANDARD VALUE | UNIT |
| Module Dimension | 122.0 x 33.0   | mm   |
| Viewing Area     | 99.0 x 13.0    | mm   |
| Mounting Hole    | 115.0 x 25.2   | mm   |
| Character Size   | 4.84 x 8.06    | mm   |

| 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    |

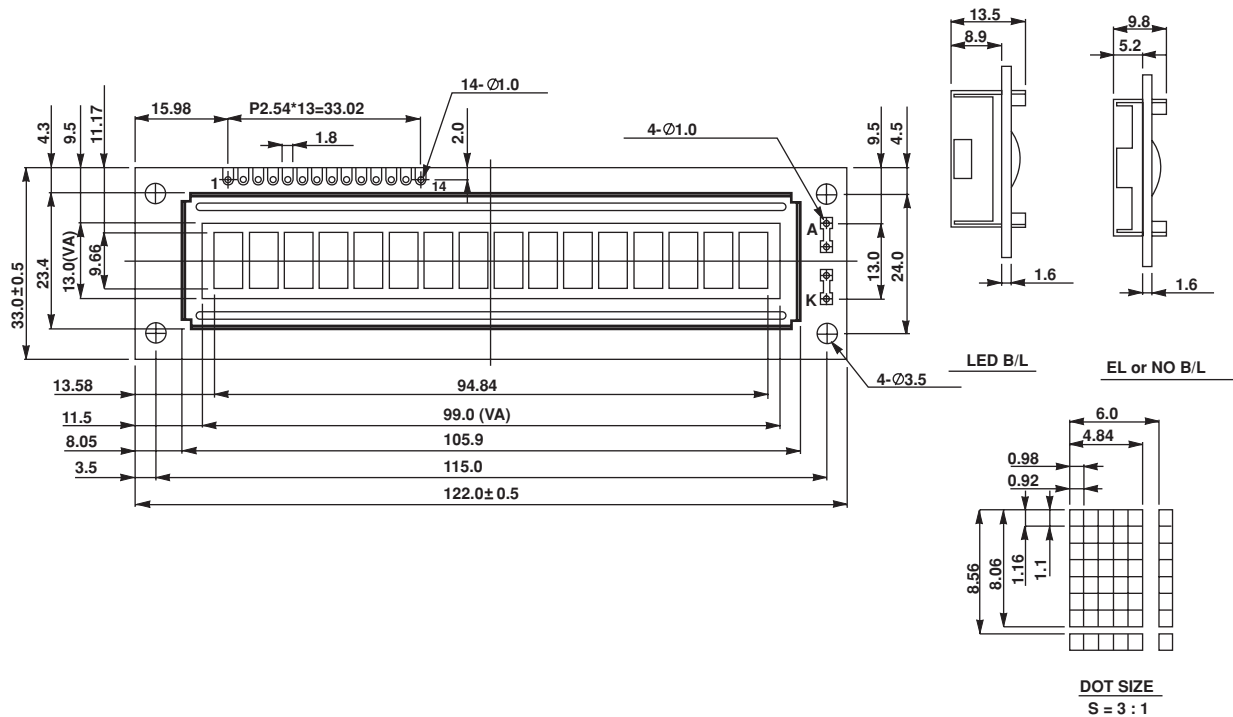
**NOTE:** VSS = 0 Volt, VDD = 5.0 Volt

| ELECTRICAL SPECIFICATIONS                                      |          |            |                |      |      |      |
|----------------------------------------------------------------|----------|------------|----------------|------|------|------|
| 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  | 1.4  | mA   |
| Recommended LC Driving Voltage for Normal Temp. Version Module | VDD - V0 | - 20 °C    | 4.9            | 5.1  | 5.5  | V    |
|                                                                |          | 0°C        | 4.5            | 4.8  | 5.1  |      |
|                                                                |          | 25°C       | 4.1            | 4.5  | 4.7  |      |
|                                                                |          | 50°C       | 3.8            | 4.2  | 4.4  |      |
|                                                                |          | 70°C       | 3.5            | 3.9  | 4.1  |      |
| LED Forward Voltage                                            | VF       | 25°C       | -              | 4.2  | 4.6  | V    |
| LED Forward Current                                            | IF       | 25°C       | -              | 160  | -    | 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 |   |   |   |   |   | 07 | 40 | 41 |    |    |    |    |    | 47 |

| PIN NUMBER | SYMBOL | FUNCTION                                        |
|------------|--------|-------------------------------------------------|
| 1          | Vss    | GND                                             |
| 2          | Vdd    | + 5V                                            |
| 3          | Vo     | Contrast Adjustment                             |
| 4          | RS     | H/L Register Select Signal                      |
| 5          | R/W    | H/L Read/Write Signal                           |
| 6          | E      | H → L Enable Signal                             |
| 7          | DB0    | H/L Data Bus Line                               |
| 8          | DB1    | H/L Data Bus Line                               |
| 9          | DB2    | H/L Data Bus Line                               |
| 10         | DB3    | H/L Data Bus Line                               |
| 11         | DB4    | H/L Data Bus Line                               |
| 12         | DB5    | H/L Data Bus Line                               |
| 13         | DB6    | H/L Data Bus Line                               |
| 14         | DB7    | H/L Data Bus Line                               |
| 15         | A/Vee  | + 4.2V for LED (RA = 0)/Negative Voltage Output |
| 16         | K      | Power Supply for B/L (0V)                       |

## DIMENSIONS in millimeters





## Disclaimer

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