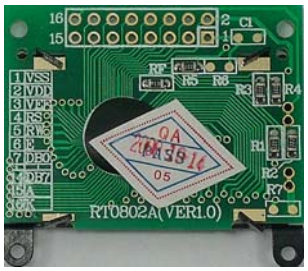
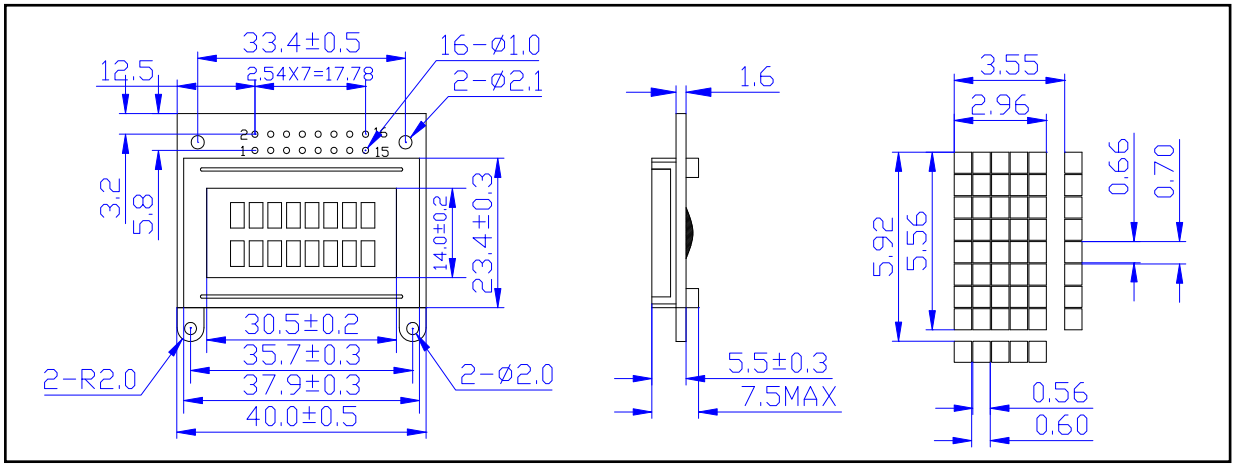
# 8X2 LCD DISPLAY MODULE




## MECHANICAL DATA

| Item | Nominal Dimensions | Unit |
|---|---|---|
| Module Size(W×H×T) | 40.0×30.4×7.5 | mm |
| Viewing Area(W×H) | 30.5×14.0 | mm |
| Character Size(W×H) | 2.96×5.56 | mm |
| Dot Size(W×H) | 0.56×0.66 | mm |

## ABSOLUTE MAXIMUM RATINGS

| Item | Symbol | Min | Type | Max | Unit |
|---|---|---|---|---|---|
| Operating Voltage | VDD | 4.5 | 5.0 | 5.5 | V |
| Operating Current | IDD | 0.8 | 1.5 | 2.2 | mA |
| LED Voltage | $V_{LED}$ | — | — | — | V |
| LED Current | $I_{LED}$ | — | — | — | mA |
| Operating Temp. | Topr | 0 | — | +60 | ℃ |
| Storage Temp. | Tsto | −10 | — | +70 | ℃ |

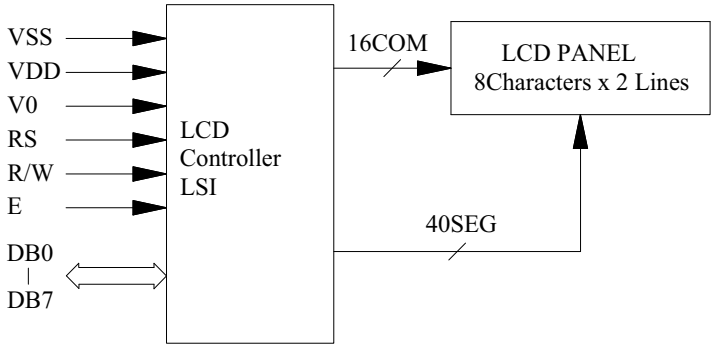
## ELECTRICAL CHARACTERISTICS

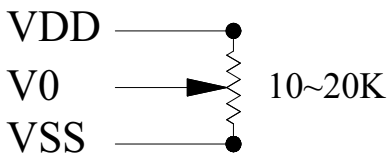
| Item | Symbol | Min | Type | Max | Unit |
|---|---|---|---|---|---|
| Input Hight Voltage | $V_{IH}$ | 2.2 | — | VDD | V |
| Input Low Voltage | $V_{IL}$ | 0 | — | 0.6 | V |
| Output Hight Voltage | $V_{OH}$ | 2.4 | — | VDD | V |
| Output Low Voltage | $V_{OL}$ | 0 | — | 0.4 | V |

## PIN CONNECTIONS

| PIN | Symbol | Level | Function |
|---|---|---|---|
| 1 | VSS | — | GND(0V) |
| 2 | VDD | — | Supply Voltage for Logic(+5V) |
| 3 | V0 | — | Power supply for LCD |
| 4 | RS | H/L | H: Data; L: Instruction Code |
| 5 | R/W | H/L | H: Read; L: Write |
| 6 | E | H/L | Enable Signal |
| 7 | DB0 | H/L | Data Bus Line |
| 8 | DB1 | H/L | |
| 9 | DB2 | H/L | |
| 10 | DB3 | H/L | |
| 11 | DB4 | H/L | |
| 12 | DB5 | H/L | |
| 13 | DB6 | H/L | |
| 14 | DB7 | H/L | |
| 15 | A | — | No LED (No Connect) |
| 16 | K | — | |

## BLOCK DIAGRAM




## POWER SUPPLY