# BOLYMIN

# BC2004D

## Feature

1. COB with metal frame
2. 5x7 dots with cursor
3. Built-in controller KS0066 or equivalent
4. + 5V single power supply
5. 1/16 duty cycle
6. LED B/L pins:15/16, or A/K, or 1/2
7. Option: LED array/edge B/L, EL B/L
8. Option: +3V single power supply

## Mechanical Data

| Item | Standard Value | Unit |
|---|---|---|
| Module Dimension | 77.0 x 47.0 | mm |
| Viewing Area | 60.0 x 22.0 | mm |
| Dot Size | 0.42 x 0.46 | mm |
| Character Size | 2.3 x 4.03 | mm |

## Pin Assignment

| Pin | 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 |
| 7~14 | DB0~7 | H/L data bus line |
| 15 | A/Vee | Power supply for B/L (+)/ Negative voltage output |
| 16 | K | Power supply for B/L (GND) |

## Electronic Characteristics

| Item | Symbol | Condition | Typical Value | Unit |
|---|---|---|---|---|
| Input Voltage | Vdd | Vdd = +5V | 5.0 | V |
| Supply Current | Idd | Vdd = +5V | 1.6 | mA |
| LCD Driving Voltage | Vdd-Vo | 25$^o$C | 4.5 | V |
| LED Forward Voltage | Vf | 25$^o$C | 4.2 | V |
| LED Forward Current | If | 25$^o$C | 180 | mA |
| EL Power Voltage | Vel | Vel=110Vac/400Hz | | V |

## Dimension