



**Feature**

1. 122X32 dots with 8192 chinese character fonts (16x16)
2. 128 alpha-numerical fonts (16x8)
3. 64X256 bit graphic display RAM
4. Strong display control fuctions:  
Vertical scroll, horizontal bit scroll, line reverse etc
5. +2.7~+5.5V power supply
4. STN; 1/32 duty; LED BKL or EL BKL
7. 4bit, 8bit, serial interface

| PIN NO | Symbol | Fuction                    |
|--------|--------|----------------------------|
| 1      | VSS □  | GND                        |
| 2      | VDD □  | +5V                        |
| 3      | V0 □   | Constrast 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      | +4.2V for LED              |
| 16     | K      | Power supply for BKL       |

**Mechanical Data**

| Item             | Standard  | Unit |
|------------------|-----------|------|
| Module dimension | 84.0x44.0 | mm   |
| Viewing area     | 64.0x17.9 | mm   |
| Dot size         | 0.40x0.45 | mm   |
| Dot pitch        | 0.44x0.49 | mm   |

**Absolute Maximum Rating**

| Item          | Symbol  | Standard |       |     | Unit |
|---------------|---------|----------|-------|-----|------|
|               |         | Min      | Typ   | Max |      |
| Power supply  | VDD-VSS | -0.3     | ----- | 5.5 | V    |
| Input voltage | VI      | -0.3     | ----- | VDD |      |

**Electronical characteristics**

| Item  | Symbol          | Condition                         | Standard |       |       | Unit |
|---|-----------------|-----------------------------------|----------|-------|-------|------|
|   |                 |                                   | Min      | Typ   | Max   |      |
| Input voltage   | VDD             | +5V                               | 4.7      | 5.0   | 5.5   | V    |
|   |                 | +3.3V                             | 2.7      | 3.0   | 5.3   | V    |
| Supply current  | IDD             | VDD=5V                            | -----    | 2     | 4     | mA   |
| Recommended LCD riling voltage for normal temp version module | VDD-V0          | -20°C                             | -----    | ----- | ----- | V    |
|   |                 | 0 °C                              | 4.7      | 5.0   | 5.5   |      |
|   |                 | 25°C                              | 4.3      | 4.5   | 4.7   |      |
|   |                 | 50°C                              | 4.1      | 4.3   | 4.5   |      |
| LED forward voltage   | VF              | 25°C                              | -----    | 4.2   | 4.6   | V    |
| LED forward current   | IF              | 25°C                              | -----    | 120   | ----- | mA   |
| EL power supply current                                       | I <sub>EL</sub> | V <sub>EL</sub> =110V<br>AC 400Hz | -----    | ----- | ----- | mA   |

**Display character address code:**

| Display position | 1  | 2  | 3  | 4   | 5   | 6   | 7   |
|------------------|----|----|----|-----|-----|-----|-----|
| DDRAM address    | 00 | 01 | 02 | --- | --- | --- | 07H |
| DDRAM address    | 10 | 11 | 12 | --- | --- | --- | 17H |