



**FEATURES**

- ◆ 5 x 7 DOTS WITH CURSOR
- ◆ BUILT-IN CONTROLLER (KS0066 OR EQUIVALENT)
- ◆ 2.7~5.5 V POWER SUPPLY
- ◆ 1/16 DUTY CYCLE
- ◆ 8-BIT PARALLEL INTERFACE

**MECHANICAL DATA**

| ITEM                    | DIMENSIONS                    | UNIT |
|-------------------------|-------------------------------|------|
| Module Size (W x H x T) | 118.0 x 43.0 x 8.8 (12.7 LED) | mm   |
| Viewing Area (W x H)    | 77.0 x 26.3                   | mm   |
| Character Size (W x H)  | 2.95 x 4.75                   | mm   |
| Character Pitch (W x H) | 3.55 x 5.35                   | mm   |
| Dot Size (W x H)        | 0.55 x 0.55                   | mm   |
| Dot Pitch (W x H)       | 0.60 x 0.60                   | mm   |

**INTERFACE PIN CONNECTIONS**

| NO. | SYMBOL | FUNCTION        | NO. | SYMBOL | FUNCTION   |
|-----|--------|-----------------|-----|--------|------------|
| 1   | VSS    | Supply Ground   | 9   | DB2    | Data Bit 2 |
| 2   | VDD    | Supply Voltage  | 10  | DB3    | Data Bit 3 |
| 3   | Vo     | Contrast Adj.   | 11  | DB4    | Data Bit 4 |
| 4   | RS     | Register Select | 12  | DB5    | Data Bit 5 |
| 5   | R/W    | Read/Write      | 13  | DB6    | Data Bit 6 |
| 6   | E      | Enable Signal   | 14  | DB7    | Data Bit 7 |
| 7   | DB0    | Data Bit 0      |     |        |            |
| 8   | DB1    | Data Bit 1      |     |        |            |

**ELECTRICAL CHARACTERISTICS**

| ITEM                  | SYMBOL              | CONDITION       | MIN. | TYP. | MAX. | UNIT              |
|-----------------------|---------------------|-----------------|------|------|------|-------------------|
| LCD Operating Voltage | V <sub>DD-Vo</sub>  | T=0°C           | -    | 4.8  | -    | V                 |
|                       |                     | T=25°C          | -    | 4.5  | -    | V                 |
|                       |                     | T=50°C          | -    | 4.2  | -    | V                 |
| Supply Voltage        | V <sub>DD-VSS</sub> | -               | 2.7  | 5    | 5.5  | V                 |
| Supply Current        | I <sub>DD</sub>     | -               | -    | 3.2  | 6    | mA                |
| Input Voltage         | "HIGH" Level        | V <sub>IH</sub> | -    | 2.2  | -    | V <sub>DD</sub> V |
|                       | "LOW" Level         | V <sub>IL</sub> | -    | 0    | -    | 0.6 V             |
| Output Voltage        | "HIGH" Level        | V <sub>OH</sub> | -    | 2.4  | -    | V                 |
|                       | "LOW" Level         | V <sub>OL</sub> | -    | -    | -    | 0.4 V             |

**BLOCK DIAGRAM**

