

# SC4004B ( 40 CHARACTERS x 4 LINES )

## FEATURES

- 5 x 7 DOTS WITH CURSOR
- BUILT-IN CONTROLLER (ST7066 OR EQUIVALENT)
- 3.3V / 5.0V POWER SUPPLY
- 1/16 DUTY CYCLE
- 8-BIT PARALLEL INTERFACE

## MECHANICAL DATA

| ITEM                      | DIMENSIONS                       | UNIT |
|---------------------------|----------------------------------|------|
| Module Size ( W x H x T ) | 288.3 x 77.5 x 12.8 ( 18.7 LED ) | mm   |
| Viewing Area ( W x H )    | 260.0 x 56.6                     | mm   |
| Character Size ( W x H )  | 5.16 x 10.52                     | mm   |
| Character Pitch ( W x H ) | 6.25 x 13.62                     | mm   |
| Dot Size ( W x H )        | 1.00 x 1.28                      | mm   |
| Dot Pitch ( W x H )       | 1.04 x 1.32                      | mm   |

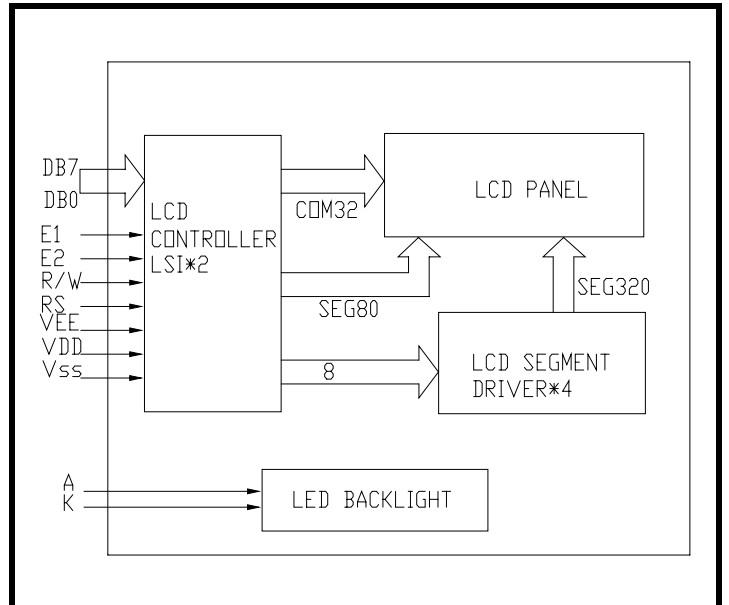
## INTERFACE PIN CONNECTIONS

| NO. | SYMBOL | FUNCTION        | NO. | SYMBOL | FUNCTION       |
|-----|--------|-----------------|-----|--------|----------------|
| 2   | NC     | No Control      | 15  | DB2    | Data Bit 2     |
| 3   | E2     | Enable IC2      | 17  | DB3    | Data Bit 3     |
| 4   | Vo     | Contrast Adj.   | 19  | DB4    | Data Bit 4     |
| 5   | R/W    | Read/Write      | 20  | Vss    | Supply Ground  |
| 7   | RS     | Register Select | 21  | DB5    | Data Bit 5     |
| 9   | E1     | Enable IC1      | 22  | VDD    | Supply Voltage |
| 11  | DB0    | Data Bit 0      | 23  | DB6    | Data Bit 6     |
| 13  | DB1    | Data Bit 1      | 25  | DB7    | Data Bit 7     |

## ELECTRICAL CHARACTERISTICS

| ITEM                  | SYMBOL       | CONDITION       | MIN. | TYP. | MAX. | UNIT              |
|-----------------------|--------------|-----------------|------|------|------|-------------------|
| LCD Operating Voltage | VDD-Vo       | T=0             | -    | 4.8  | -    | V                 |
|                       |              | T=25            | -    | 4.5  | -    | V                 |
|                       |              | T=50            | -    | 4.2  | -    | V                 |
| Supply Voltage        | VDD-VSS      | -               | 2.7  | 5    | 5.5  | V                 |
| Supply Current        | IDD          | -               | -    | 6.0  | 10   | 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



## EXTERNAL DIMENSIONS

