



# SG12864F ( 128 DOTS X 64 DOTS )

## FEATURES

- ◆ BUILT-IN CONTROLLER (T6963C OR EQUIVALENT)
- ◆ +5 V POWER SUPPLY
- ◆ 1/64 DUTY CYCLE
- ◆ 8-BIT PARALLEL INTERFACE
- ◆ 4.2 V LED FORWARD VOLTAGE

## INTERFACE PIN CONNECTIONS

| NO.  | SYMBOL  | LEVEL | FUNCTION                            |
|------|---------|-------|-------------------------------------|
| 1    | Vss     | 0V    | Power Supply Ground                 |
| 2    | VDD     | 5V    | Power Supply Voltage                |
| 3    | Vo      | -     | Contrast Adjustment Voltage         |
| 4    | C/D     | H/L   | H : Data, L : Instruction Code      |
| 5    | /RD     | L     | Write Signal                        |
| 6    | /WR     | L     | Read Signal                         |
| 7~14 | DB0~DB7 | H/L   | Data Bus Line                       |
| 15   | /CE     | L     | Enable Signal                       |
| 16   | /RST    | L     | Reset Signal                        |
| 17   | Vout    | -     | Power Supply Voltage For LCD        |
| 18   | MD      | H/L   | H : 32/ L : 40 Select Of Columns    |
| 19   | FS      | H/L   | H : 6*8 , L : 8*8 Select Of Columns |
| 20   | /HLT    | L     | Stop The Oscillation Of Clock       |

## MECHANICAL DATA

| ITEM                    | DIMENSIONS                     | UNIT |
|-------------------------|--------------------------------|------|
| Module Size (W x H x T) | 87.0 x 70.0 x 8.8 ( 12.7 LED ) | mm   |
| Viewing Area ( W x H )  | 72.0 x 40.0                    | mm   |
| Active Area ( W x H )   | 66.52 x 33.24                  | mm   |
| Dot Size ( W x H )      | 0.48 x 0.48                    | mm   |
| Dot Pitch ( W x H )     | 0.52 x 0.52                    | mm   |

## ABSOLUTE MAXIMUM RATINGS

| ITEM                         | SYMBOL  | MIN. | TYP. | MAX. | UNIT |
|------------------------------|---------|------|------|------|------|
| Supply Voltage For Logic     | VDD-Vss | 0    | -    | 7    | V    |
| Supply Voltage For LCD Drive | VDD-Vo  | 0    | -    | 14   | V    |
| Input Voltage                | Vi      | Vss  | -    | VDD  | V    |

## ELECTRICAL CHARACTERISTICS

| ITEM                     |              | SYMBOL             | CONDITION     | MIN. | TYP. | MAX.            | UNIT |
|--------------------------|--------------|--------------------|---------------|------|------|-----------------|------|
| Supply Voltage For Logic |              | VDD-VSS            | -             | 4.5  | 5    | 5.5             | V    |
| Supply Voltage For LCD   |              | VDD-V <sub>0</sub> | VDD=5V Ta=25℃ | 7.6  | 8.3  | 9.2             | V    |
| Supply Current           |              | IDD                | VDD=5V        | -    | 4.5  | 10              | mA   |
| Input                    | "HIGH" Level | V <sub>IH</sub>    | -             | 2.2  | -    | V <sub>DD</sub> | V    |
| Voltage                  | "LOW" Level  | V <sub>IL</sub>    | -             | -    | -    | 0.6             | V    |
| Output                   | "HIGH" Level | V <sub>OH</sub>    | -             | 2.4  | -    | -               | V    |
| Voltage                  | "LOW" Level  | V <sub>OL</sub>    | -             | -    | -    | 0.4             | V    |

## EXTERNAL DIMENSIONS

