

# DG-12864-11 128x64dots 1/64 Duty Reflective/EL/LED Backlight

| MECHANICAL DATA |                             |      |
|-----------------|-----------------------------|------|
| Item            | Dimension                   | Unit |
| Module Size     | 78.0(W) x 70.0(H) x 10.5(T) | mm   |
| View Area       | 62.0(W) x 44.0(H)           | mm   |
| Dot Size        | 0.4 x 0.56                  | mm   |
| Dot Pitch       | 0.44 x 0.6                  | mm   |

| ABSOLUTELY MAXIMUM RATINGS   |                 |                |      |          |      |
|------------------------------|-----------------|----------------|------|----------|------|
| Item                         | Symbol          | Standard Value |      |          | Unit |
|                              |                 | Min            | Typ. | Max.     |      |
| Supply Voltage for Logic     | $V_{DD}-V_{SS}$ | 0              | --   | 7.0      | V    |
| Supply Voltage for LCD Drive | $V_{DD}-V_{EE}$ | 0              | --   | 10.0     | V    |
| Input Voltage                | $V_I$           | $V_{SS}$       | --   | $V_{DD}$ | V    |

| ELECTRICAL CHARACTERISTICS              |                 |             |                     |       |                     |      |
|---|-----------------|-------------|---------------------|-------|---------------------|------|
| Item                                    | Symbol          | Condition   | Min.                | Typ.  | Max.                | Unit |
| LCD Circuit Power Supply Voltage        | $V_{DD}-V_{SS}$ | --          | 4.5                 | 5.0   | 5.5                 | V    |
| LCD Driver Circuit Power Supply Voltage | $V_{DD}-V_0$    | -20°C       | --                  | 8.97  | --                  | V    |
|   |                 | 0°C         | --                  | 9.109 | --                  | V    |
|   |                 | 25°C        | --                  | 8.969 | --                  | V    |
|   |                 | 50°C        | --                  | 8.736 | --                  | V    |
|   |                 | 70°C        | --                  | 8.35  | --                  | V    |
| Input Voltage                           | $V_{IH}$        | NOTE(1)     | $0.7 \times V_{DD}$ | --    | $V_{DD}$            | V    |
| Input Voltage                           | $V_{IL}$        | NOTE(1)     | $V_{SS}$            | --    | $0.3 \times V_{DD}$ | V    |
| Supply Current                          | $I_{DD}$        | $V_{DD}=5V$ | --                  | 1     | 3                   | mA   |

NOTE(1) PIN,RS,R/W,DB0-DB7

| PIN FUNCTIONS |          |       |   |
|---------------|----------|-------|---|
| Pin NO.       | Symbol   | Level | Function                                |
| 1             | /CSA     | --    | Chip Selection                          |
| 2             | /CSB     | --    | Chip Selection                          |
| 3             | $V_{SS}$ | --    | GND                                     |
| 4             | $V_{DD}$ | --    | Power Supply For Logic                  |
| 5             | $V_0$    | --    | Power Supply For LCD Drive              |
| 6             | D/I      | H/L   | H: Data Input L: Instruction Code Input |
| 7             | R/W      | H/L   | H: Data Read L: Data Write              |
| 8             | E        | H,H-L | Enable Signal                           |
| 9-16          | DB0-DB7  | H/L   | Data Bus Line                           |
| 17            | /RST     | L     | Reset                                   |
| 18            | $V_{EE}$ | --    | Negative Voltage Output (-5v)           |
| 19            | NC       | --    | No Connection                           |
| 20            | NC       | --    | No Connection                           |

