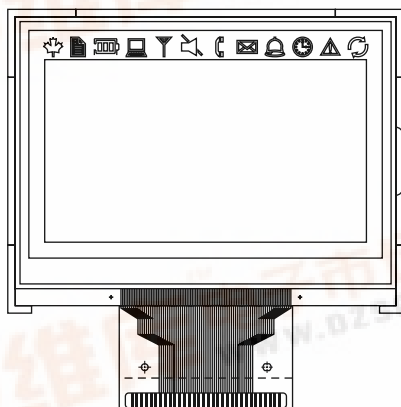


# 128 x 64 Graphic LCD



## FEATURES

- Type: Graphic
- Display format: 128 x 64 dots
- Built-in controller: Sitronix ST565P-F3
- Duty cycle: 1/64
- + 3.3 V power supply only
- Optional touch panel
- Compliant to RoHS directive 2002/95/EC



**RoHS**  
COMPLIANT

## MECHANICAL DATA

| ITEM             | STANDARD VALUE | UNIT |
|------------------|----------------|------|
| Module Dimension | 56.0 x 42.5    | mm   |
| Viewing Area     | 52.0 x 33.5    |      |
| Dot Size         | 0.35 x 0.40    |      |
| Dot Pitch        | 0.37 x 0.42    |      |
| Mounting Hole    | N/a            |      |
| Character Size   | N/a            |      |

## ABSOLUTE MAXIMUM RATINGS

| ITEM          | SYMBOL               | STANDARD VALUE |      |          | UNIT |
|---------------|----------------------|----------------|------|----------|------|
|               |                      | MIN.           | TYP. | MAX.     |      |
| Power Supply  | $V_{DD}$ to $V_{SS}$ | 2.4            | -    | 5.5      | V    |
| Input Voltage | $V_I$                | - 0.3          | -    | $V_{DD}$ |      |

### Note

- $V_{SS} = 0$  V,  $V_{DD} = 5.0$  V

## ELECTRICAL CHARACTERISTICS

| ITEM                                                                 | SYMBOL            | CONDITION                               | STANDARD VALUE |      |          | UNIT |
|----------------------------------------------------------------------|-------------------|-----------------------------------------|----------------|------|----------|------|
|                                                                      |                   |                                         | MIN.           | TYP. | MAX.     |      |
| Input Voltage                                                        | $V_{DD}$          | L level                                 | $0.8 V_{DD}$   | -    | $V_{DD}$ | V    |
|                                                                      | $V_{IO}$          | H level                                 | -              | -    | -        | V    |
| Supply Current                                                       | $I_{DD}$          | $V_{DD} = +5$ V                         | -              | -    | -        | mA   |
| Recommended LC Driving Voltage for Normal Temperature Version Module | $V_{DD}$ to $V_0$ | - 20 °C                                 | 9.5            | 10.0 | 10.5     | V    |
|                                                                      |                   | 0 °C                                    | 9.3            | 9.8  | 10.3     |      |
|                                                                      |                   | 25 °C                                   | 7.9            | 8.4  | 8.9      |      |
|                                                                      |                   | 50 °C                                   | 7.0            | 7.5  | 8.0      |      |
|                                                                      |                   | 70 °C                                   | 6.8            | 7.3  | 7.8      |      |
| EL Power Supply Current                                              | $I_{EL}$          | $V_{EL} = 110$ V <sub>AC</sub> , 400 Hz | -              | -    | -        | mA   |

## OPTIONS

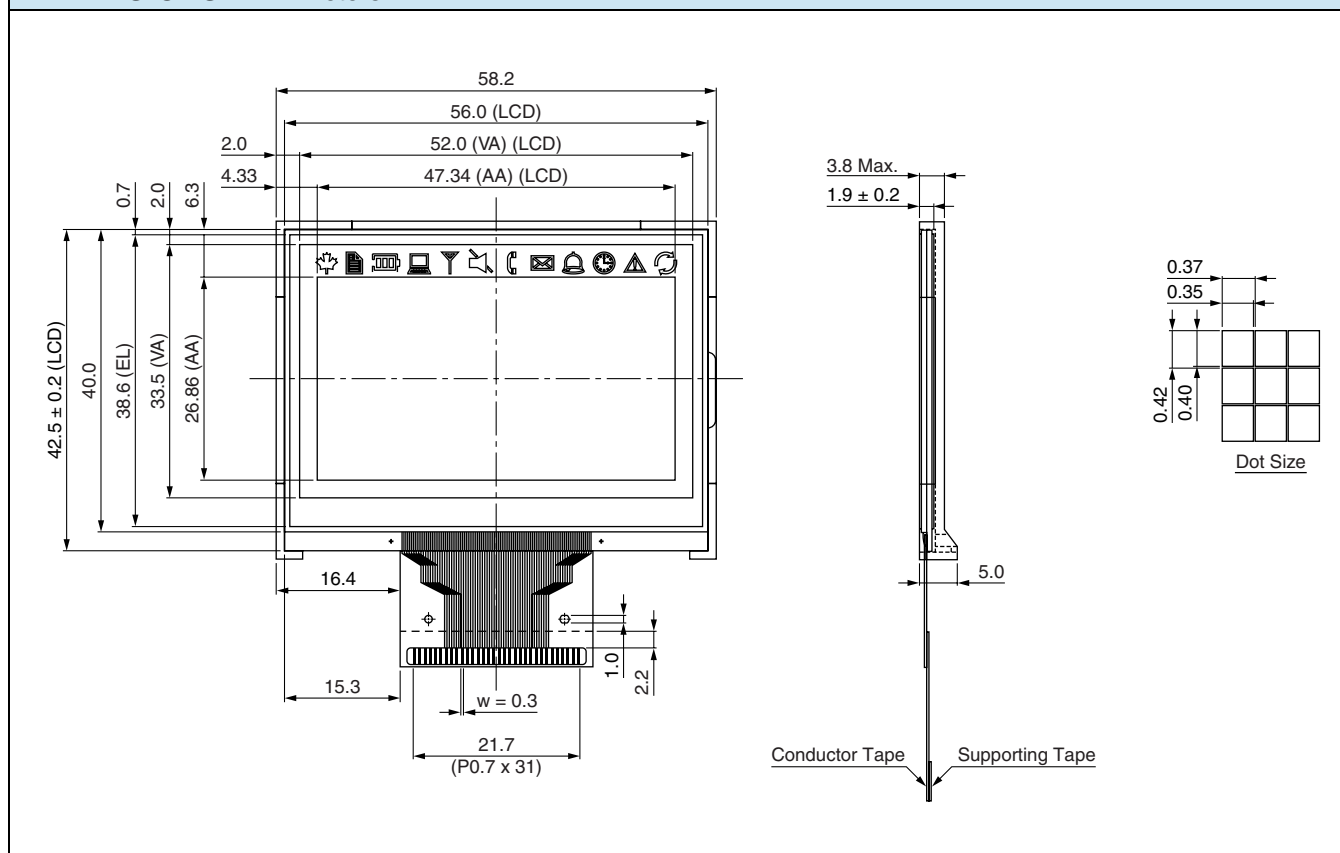
| PROCESS COLOR |          |            |          |          |           | BACKLIGHT |     |    |      |
|---------------|----------|------------|----------|----------|-----------|-----------|-----|----|------|
| TN            | STN Gray | STN Yellow | STN Blue | FSTN B&W | STN Color | None      | LED | EL | CCFL |
|               | x        | x          |          | x        |           | x         |     | x  |      |

For detailed information, please see the "Product Numbering System" document.

## INTERFACE PIN FUNCTION

| PIN NO. | SYMBOL          | PIN NO. | SYMBOL           |
|---------|-----------------|---------|------------------|
| 1       | NC              | 17      | V <sub>SS</sub>  |
| 2       | CS1B            | 18      | V <sub>OUT</sub> |
| 3       | CS2             | 19      | NC               |
| 4       | RESB            | 20      | CAP3P            |
| 5       | A0              | 21      | CAP1N            |
| 6       | WRB (W/R)       | 22      | CAP1P            |
| 7       | RDB (E)         | 23      | CAP2P            |
| 8       | DB0             | 24      | CAP2N            |
| 9       | DB1             | 25      | V4               |
| 10      | DB2             | 26      | V3               |
| 11      | DB3             | 27      | V2               |
| 12      | DB4             | 28      | V1               |
| 13      | DB5             | 29      | V0               |
| 14      | DB6             | 30      | VR               |
| 15      | DB7             | 31      | C86              |
| 16      | V <sub>DD</sub> | 32      | NC               |

## DIMENSIONS in millimeters



## Disclaimer

All product specifications and data are subject to change without notice.

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