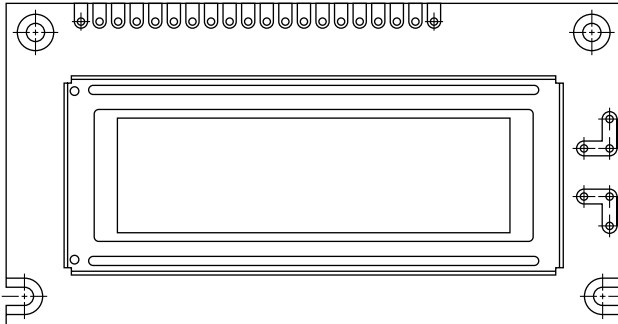


122 x 32 Graphic LCD



FEATURES

- Type: Graphic
- Display format: 122 x 32 dots
- Built-in controller: ST7920
- Duty cycle: 1/32
- Chinese version
- Same size with LCD-122H032A
- Compliant to RoHS directive 2002/95/EC


RoHS
COMPLIANT

| MECHANICAL DATA | | |
|------------------|----------------|------|
| ITEM | STANDARD VALUE | UNIT |
| Module Dimension | 84.0 x 44.0 | mm |
| Viewing Area | 60.0 x 18.0 | |
| Dot Size | 0.40 x 0.45 | |
| Dot Pitch | 0.44 x 0.49 | |
| Mounting Hole | 79.0 x 36.0 | |
| Character Size | N/a | |

| ABSOLUTE MAXIMUM RATINGS | | | | | |
|--------------------------|----------------------|----------------|------|----------|------|
| ITEM | SYMBOL | STANDARD VALUE | | | UNIT |
| | | MIN. | TYP. | MAX. | |
| Power Supply | V_{DD} to V_{SS} | 0 | - | 7.0 | V |
| Input Voltage | V_I | 0 | - | V_{DD} | |

Note

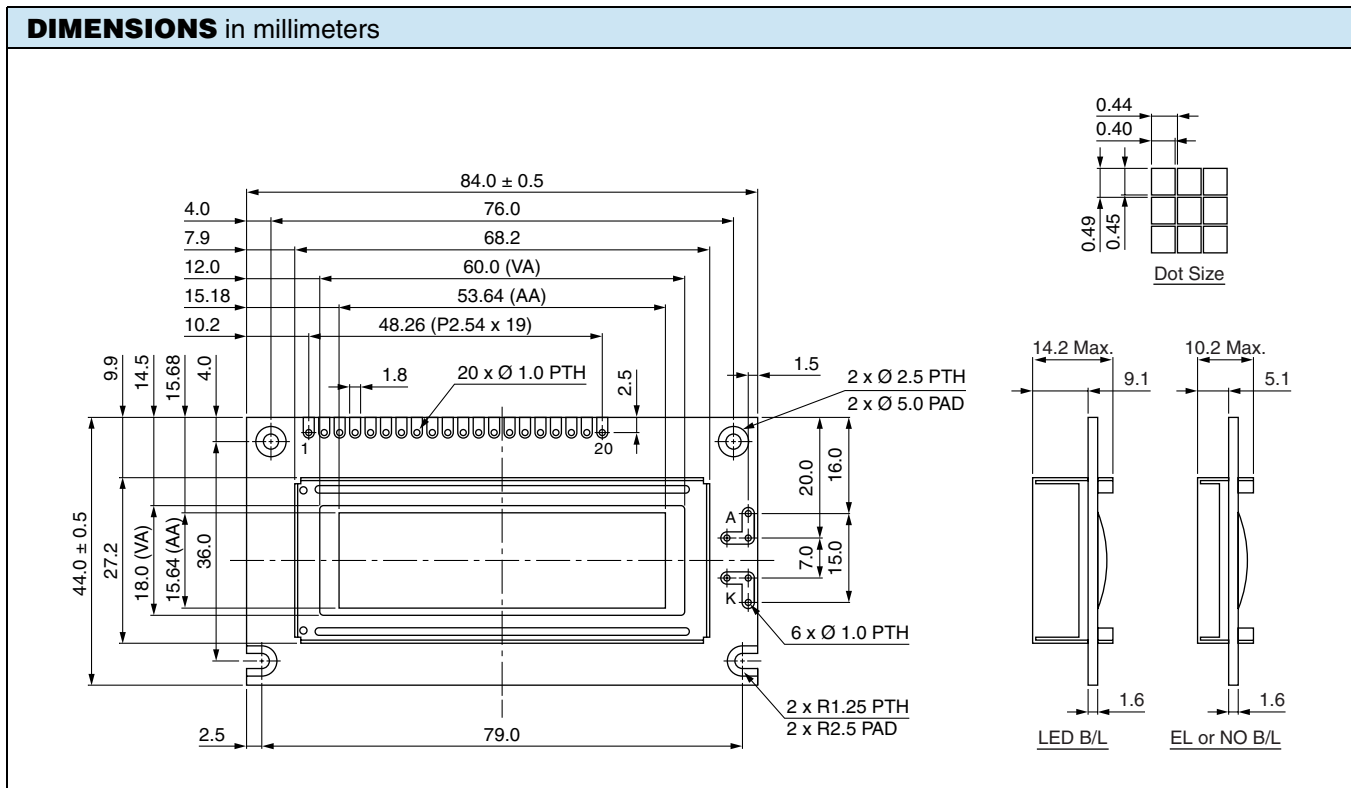
- $V_{SS} = 0$ V, $V_{DD} = 5.0$ V

| ELECTRICAL CHARACTERISTICS | | | | | | |
|--|-------------------|--------------------------------|----------------|------|------|------------|
| ITEM | SYMBOL | CONDITION | STANDARD VALUE | | | UNIT |
| | | | MIN. | TYP. | MAX. | |
| Input Voltage | V_{DD} | - | 4.5 | 5.0 | 5.5 | V |
| Supply Current | I_{DD} | $V_{DD} = +5$ V | 1.2 | 1.4 | 1.8 | mA |
| Recommended LC Driving Voltage for Normal Temperature Version Module | V_{DD} to V_0 | -20 °C | - | - | 5.2 | V |
| | | 25 °C | - | 4.4 | - | |
| | | 70 °C | 3.7 | - | - | |
| CCFL Starting Voltage | V_{FLS} | 25 °C | - | - | - | V_{RMS} |
| CCFL Driving Voltage | V_{FLD} | 25 °C | - | - | - | V_{RMS} |
| CCFL Driving Current | I_{FLD} | $V_{FQ} = 450 V_{RMS}, 30$ kHz | - | - | - | mA_{RMS} |
| LED Forward Voltage | V_F | 25 °C | 4.0 | 4.2 | 4.4 | V |
| LED Forward Current | I_F | 25 °C | 90 | 120 | 180 | mA |
| EL Power Supply Current | I_{EF} | $V_{EL} = 110 V_{AC}, 400$ Hz | - | - | 5.0 | 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 | x | x | |

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

| INTERFACE PIN FUNCTION | | | |
|------------------------|-------------------------|---------|----------------------------|
| PIN NO. | SYMBOL | PIN NO. | FUNCTION |
| 1 | V _{SS} | | Ground |
| 2 | V _{DD} | | Supply voltage for logic |
| 3 | V ₀ | | Operating voltage for LCD |
| 4 | RS | | H/L register select signal |
| 5 | V _{OUT} | | Positive voltage output |
| 6 | NC | | NC |
| 7 | NC | | NC |
| 8 | E | | Enable signal |
| 9 | R/W | | H: Read data/L: Write data |
| 10 | DB0 | | Data bus line |
| 11 | DB1 | | Data bus line |
| 12 | DB2 | | Data bus line |
| 13 | DB3 | | Data bus line |
| 14 | DB4 | | Data bus line |
| 15 | DB5 | | Data bus line |
| 16 | DB6 | | Data bus line |
| 17 | DB7 | | Data bus line |
| 18 | $\overline{\text{RES}}$ | | L: Reset the LCM |
| 19 | A | | Power supply for B/L (+) |
| 20 | K | | Power supply for B/L (-) |





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