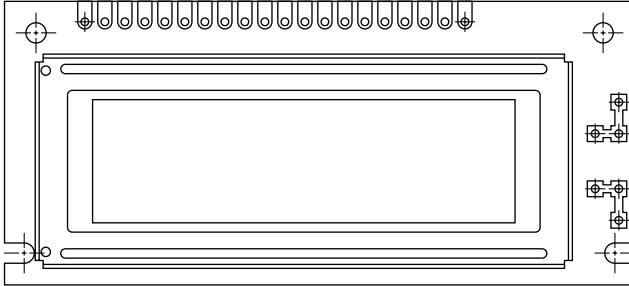# 122 x 32 Graphic LCD

## FEATURES

- Type: Graphic
- Display format: 122 x 32 dots
- Built-in controller: Epson SED1520 (or equivalent)
- Duty cycle: 1/32
- Available for external (E type), internal (J type) oscillation 2 kHz
- N.V. optional for + 3 V power supply
- Compliant to RoHS directive 2002/95/EC

**RoHS COMPLIANT**

## MECHANICAL DATA

| ITEM | STANDARD VALUE | UNIT |
|---|---|---|
| Module Dimension | 80.0 x 36.0 | mm |
| Viewing Area | 60.0 x 18.0 | |
| Dot Size | 0.40 x 0.45 | |
| Dot Pitch | 0.44 x 0.49 | |
| Mounting Hole | 75.0 x 28.0 | |
| Character Size | N/a | |

## ABSOLUTE MAXIMUM RATINGS

| ITEM | SYMBOL | STANDARD VALUE | | | UNIT |
|---|---|---|---|---|---|
| | | MIN. | TYP. | MAX. | |
| Power Supply | $V_{DD}$ to $V_{SS}$ | 4.75 | 5.0 | 5.25 | 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 | $V_{DD}$ | $V_{DD}$ = + 5 V | 4.5 | 5.0 | 5.5 | V |
| Supply Current | $I_{DD}$ | $V_{DD}$ = + 5 V | - | 1.0 | 1.4 | mA |
| Recommended LC Driving Voltage for Normal Temperature Version Module | $V_{DD}$ to $V_0$ | - 20 °C | 4.9 | 5.0 | 5.1 | V |
| | | 0 °C | 4.7 | 4.8 | 4.9 | |
| | | 25 °C | 4.6 | 4.7 | 4.8 | |
| | | 50 °C | 4.3 | 4.4 | 4.7 | |
| | | 70 °C | 4.1 | 4.2 | 4.5 | |
| LED Forward Voltage | $V_F$ | 25 °C | - | 4.2 | 4.6 | V |
| LED Forward Current | $I_F$ | 25 °C | - | 120 | 240 | mA |
| EL Power Supply Current | $I_{EL}$ | $V_{EL}$ = 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.

# LCD-122H032E, LCD-122H032J

Vishay

122 x 32 Graphic LCD

## INTERFACE PIN FUNCTION

| PIN NO. | SYMBOL | FUNCTION |
|---|---|---|
| 1 | $V_{SS}$ | Ground |
| 2 | $V_{DD}$ | Power supply for logic |
| 3 | $V_0$ | Contrast adjustment |
| 4 | $A_0$ | H → Data/L → Instruction |
| 5 | CS1 | L → Chip 1 enable |
| 6 | CS2 | L → Chip 2 enable |
| 7 | CL/NV | E type: External clock 2 kHz/J type: Negatvie voltage option |
| 8 | E/NC | E type: Enable signal/J type: No connection |
| 9 | R/$\overline{W}$ | 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 | RES | H → L reset the LCM |
| 19 | A/$V_{EE}$ | E type: + 4.2 V for LED/negative voltage output/J type: A |
| 20 | K | Power supply for B/L |

## DIMENSIONS in millimeters

For technical questions, contact: displays@vishay.com

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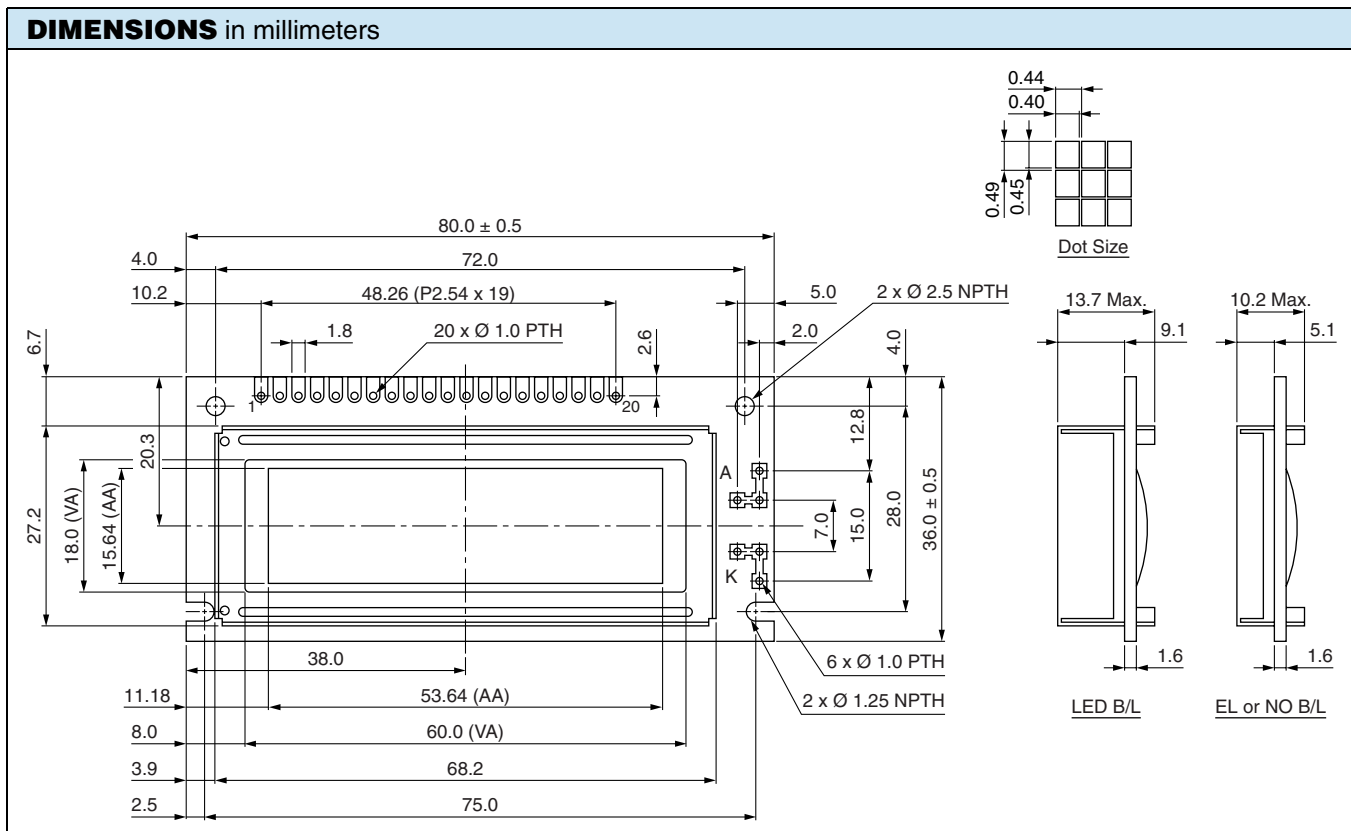
# Disclaimer

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