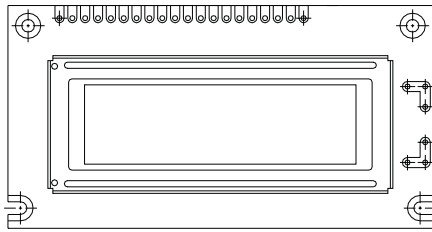


122 x 32 Dots Graphic LCD



FEATURES

- Available for external oscillation 2KHz
- SED 1520, or equivalent
- 1/32 duty cycle
- N.V. optional for + 3V power supply

| MECHANICAL DATA | | |
|------------------|----------------|------|
| ITEM | STANDARD VALUE | UNIT |
| Module Dimension | 84.0 x 44.0 | mm |
| Viewing Area | 60.0 x 18.0 | mm |
| Dot Size | 0.4 x 0.45 | mm |
| Dot Pitch | 0.44 x 0.49 | mm |

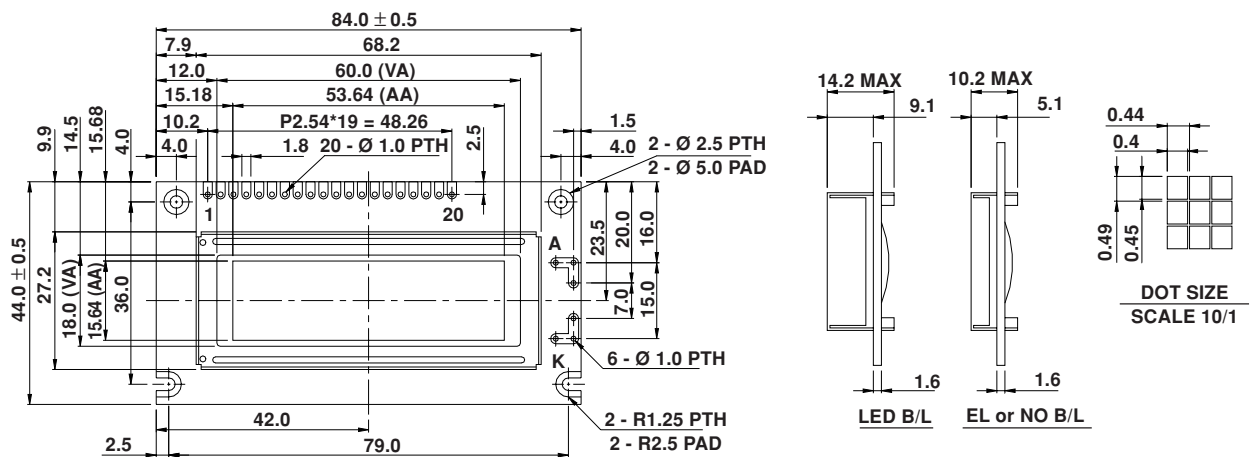
| ABSOLUTE MAXIMUM RATING | | | | | |
|-------------------------|---------|----------------|------|------|------|
| ITEM | SYMBOL | STANDARD VALUE | | | UNIT |
| | | MIN. | TYP. | MAX. | |
| Power Supply | VDD-VSS | 4.75 | 5 | 5.25 | V |
| Input Voltage | VI | 0 | - | VDD | V |

NOTE: VSS = 0 Volt, VDD = 5.0 Volt

| ELECTRICAL SPECIFICATIONS | | | | | | |
|---|--------|--------------------|----------------|------|------|------|
| ITEM | SYMBOL | CONDITION | STANDARD VALUE | | | UNIT |
| | | | MIN. | TYP. | MAX. | |
| Input Voltage | VDD | VDD = + 5V | 4.5 | 5.0 | 5.5 | V |
| Supply Current | IDD | VDD = 5V | - | 1.0 | 1.5 | mA |
| Recommended LC Driving Voltage for Normal Temp. | VDD-V0 | 0°C | 4.7 | 4.8 | 4.9 | V |
| Version Module | | 25°C | 4.6 | 4.7 | 4.8 | |
| | | 50°C | 4.3 | 4.4 | 4.7 | |
| LED Forward Voltage | VF | 25°C | - | 4.2 | 4.6 | V |
| LED Forward Current | IF | 25°C | - | 120 | 240 | mA |
| EL Power Supply Current | IEL | Vel = 110VAC:400Hz | - | - | 5.0 | mA |

| PIN NUMBER | SYMBOL | FUNCTION |
|------------|--------|--------------------------------------|
| 1 | Vss | GND |
| 2 | Vdd | (+ 5V) |
| 3 | Vo | Contrast Adjustment |
| 4 | Ao | H →Data L →Instruction |
| 5 | CS1 | L →Chip 1 Enable |
| 6 | CS2 | L →Chip 2 Enable |
| 7 | CL | External Clock 2KHz |
| 8 | E | Enable Signal |
| 9 | RW | Data Read/Write |
| 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/Vee | 4.2V for LED/Negative Voltage Output |
| 20 | K | Power Supply for B/L (0V) |

DIMENSIONS in millimeters





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