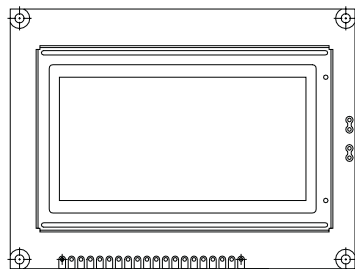


128 x 64 Dots Graphic LCD



FEATURES

- Built-in controller (KS0107 - KS0108 re Equivalent)
- + 5V power supply
- 1/64 duty cycle
- N.V. Built-in

| MECHANICAL DATA | | |
|------------------|----------------|------|
| ITEM | STANDARD VALUE | UNIT |
| Module Dimension | 93.0 x 70.0 | mm |
| Viewing Area | 72.0 x 40.0 | mm |
| Dot Size | 0.48 x 0.48 | mm |
| Dot Pitch | 0.52 x 0.52 | mm |

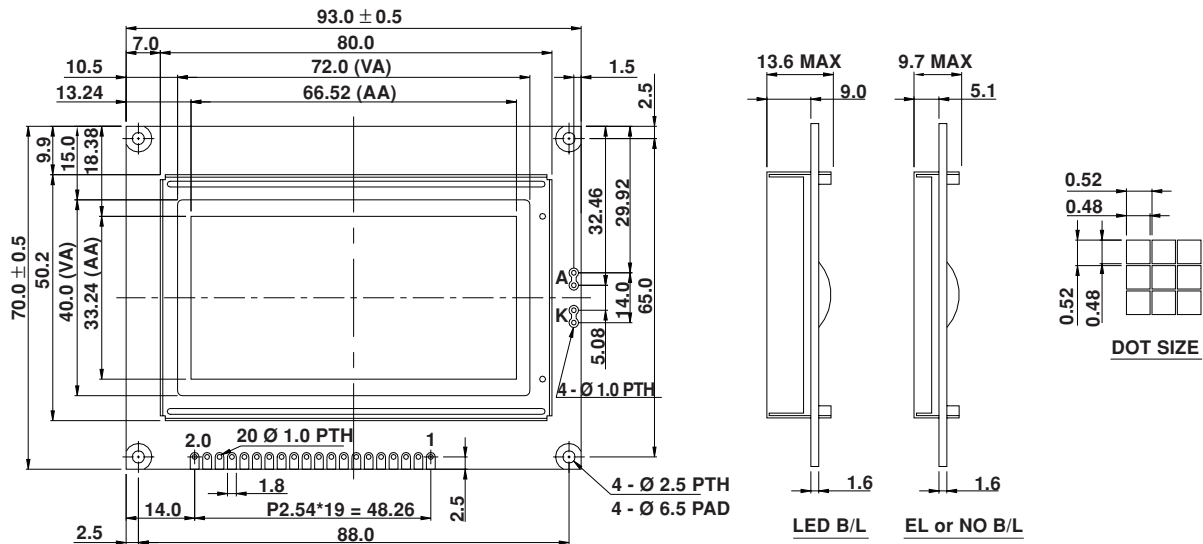
| ABSOLUTE MAXIMUM RATING | | | | | |
|-------------------------|---------|----------------|------|------|------|
| ITEM | SYMBOL | STANDARD VALUE | | | UNIT |
| | | MIN. | TYP. | MAX. | |
| Power Supply | VDD-VSS | 4.75 | 5.0 | 5.25 | V |
| Input Voltage | VI | - 0.3 | - | VDD | V |

NOTE: VSS = 0 Volt, VDD = 5.0 Volt

| ELECTRICAL SPECIFICATIONS | | | | | | | |
|--|--------|---------------------|----------------|------|-------------|------|----|
| ITEM | SYMBOL | CONDITION | STANDARD VALUE | | | UNIT | |
| | | | MIN. | TYP. | MAX. | | |
| Input Voltage | VDD | L level | $0.7V_{DD}$ | - | V_{DD} | V | |
| | VIO | H level | 0 | - | $0.3V_{DD}$ | V | |
| Supply Current | IDD | VDD = 5V | - | 2.5 | 7.5 | mA | |
| Recommended LC Driving Voltage for Normal Temp. Version Module | VDD-V0 | 0°C | 9.7 | 10.2 | 10.7 | V | |
| | | 25°C | 8.9 | 9.4 | 9.9 | | |
| | | 50°C | 8.6 | 9.1 | 9.6 | | |
| LED Forward Voltage | VF | 25°C | - | 4.2 | 4.6 | V | |
| LED Forward Current | IF | 25°C | Array | - | 330 | 660 | mA |
| | | 25°C | Edge | - | 120 | 240 | mA |
| EL Power Supply Current | IEL | Vel = 110VAC; 400Hz | - | - | 5.0 | mA | |

| PIN NUMBER | SYMBOL | FUNCTION |
|------------|-----------------|-----------------------------|
| 1 | V _{ss} | GND |
| 2 | V _{dd} | Power Supply (+ 5V) |
| 3 | V _o | Contrast Adjustment |
| 4 | D/I | Data/Instruction |
| 5 | R/W | Data Read/Write |
| 6 | E | H → L Enable Signal |
| 7 | DB0 | Data Bus Line |
| 8 | DB1 | Data Bus Line |
| 9 | DB2 | Data Bus Line |
| 10 | DB3 | Data Bus Line |
| 11 | DB4 | Data Bus Line |
| 12 | DB5 | Data Bus Line |
| 13 | DB6 | Data Bus Line |
| 14 | DB7 | Data Bus Line |
| 15 | CS1 | Chip Select for IC1 |
| 16 | CS2 | Chip Select for IC2 |
| 17 | RST | Reset |
| 18 | V _{ee} | Negative Voltage Output |
| 19 | A | Power Supply for LED (4.2V) |
| 20 | K | Power Supply for LED (0V) |

DIMENSIONS in millimeters





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