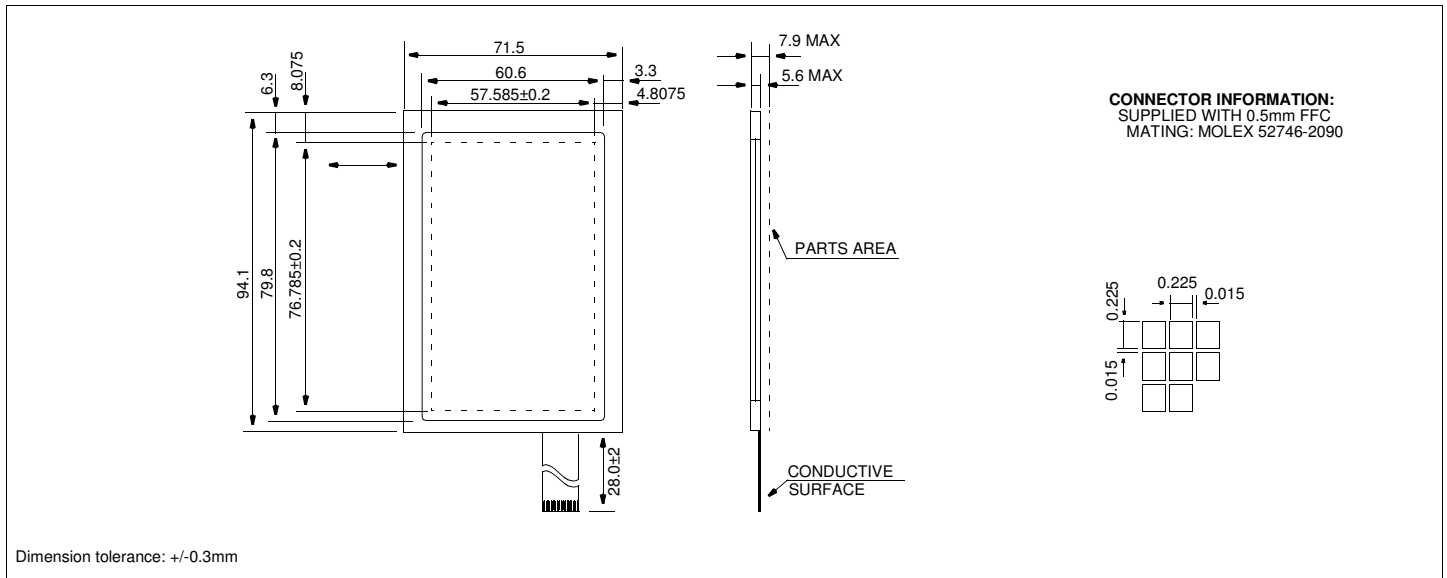


HDM2432L-T

Dimensional Drawing

240 X 320 Dots Graphic (Portrait Mode) White LED Backlight



Features

Backlight.....White LED
 Options.....Black and White FSTN
 Extended Temperature
 Bottom Viewing
 Built-in Controller.....None

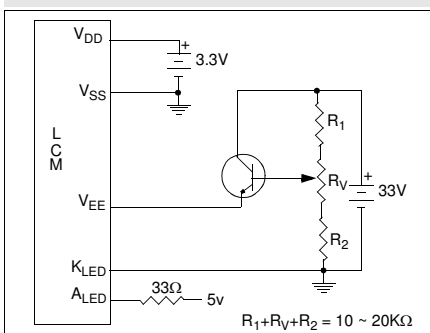
Physical Data

Module Size.....71.5W x 94.1H x 7.9T mm
 Viewing Area Size.....60.6W x 79.8H mm
 Dot Pitch.....0.24W x 0.24H mm
 Dot Size.....0.225W x 0.225H mm
 Weight.....59g

Absolute Maximum Ratings

| PARAMETER | SYMBOL | MIN | MAX | UNIT |
|------------------------|-----------------|------|----------|------|
| SUPPLY VOLTAGE | $V_{DD}-V_{SS}$ | -0.3 | 7.0 | V |
| SUPPLY VOLTAGE FOR LCD | $V_{DD}-V_{EE}$ | -0.3 | 30.0 | V |
| INPUT VOLTAGE | V_{IN} | -0.3 | V_{DD} | V |
| OPERATING TEMPERATURE | T_{OP} | -0 | 50 | °C |
| STORAGE TEMPERATURE | T_{STG} | -20 | 70 | °C |

Power Supply



Pin Connections

| PIN NO. | SYMBOL | LEVEL | FUNCTION |
|---------|----------|-------|---------------------------------|
| 1 | V_{DD} | 3.3V | Power supply for logic |
| 2 | SGND | - | Shield Ground |
| 3 | V_{EE} | - | Power supply for LCD |
| 4 | FLM | H/L | First Line Marker |
| 5 | DISP ENA | H/L | H = Display ON, L = Display OFF |
| 6 | M | H/L | AC signal |
| 7 | CL1 | H/L | Data Latch clock |
| 8 | CL2 | H/L | Data shift clock |
| 9 | V_{SS} | 0V | Ground |
| 10 | D0 | H/L | Display data |
| 11 | D1 | H/L | |
| 12 | D2 | H/L | |
| 13 | D3 | H/L | Ground |
| 14 | V_{SS} | 0V | |
| 15 | LED + | - | Anode for LED |
| 16 | LED- | - | Cathode for LED |
| 17 | N/C | | No Connection |
| 18 | N/C | | |
| 19 | N/C | | |
| 20 | N/C | | |

Electrical Characteristics (VDD=3.3±0.25V 25 °C)

| PARAMETER | SYM | CONDITION | MIN | TYP | MAX | UNIT |
|---------------------|------------|----------------|--------------|------|--------------|------|
| INPUT HIGH VOLTAGE | V_{IH} | - | 0.8 V_{DD} | - | V_{DD} | V |
| INPUT LOW VOLTAGE | V_{IL} | - | 0 | - | 0.2 V_{DD} | V |
| OUTPUT HIGH VOLTAGE | V_{OH} | $I_{OH}=0.4mA$ | $V_{DD}-0.4$ | - | - | V |
| OUTPUT LOW VOLTAGE | V_{OL} | $I_{OL}=0.4mA$ | - | - | 0.4 | V |
| SUPPLY VOLTAGE | V_{DD} | - | 3.0 | 3.3 | 3.6 | V |
| | V_{EE} | - | 26.4 | 26.8 | 27.2 | V |
| LED BACKLIGHT | I_{LED} | $V_{LED}=5V$ | - | 55 | 82 | mA |
| BRIGHTNESS | L | $I_{LED}=55mA$ | - | 5.6 | - | NIT |
| DRIVE METHOD | 1/320 DUTY | | | | | |