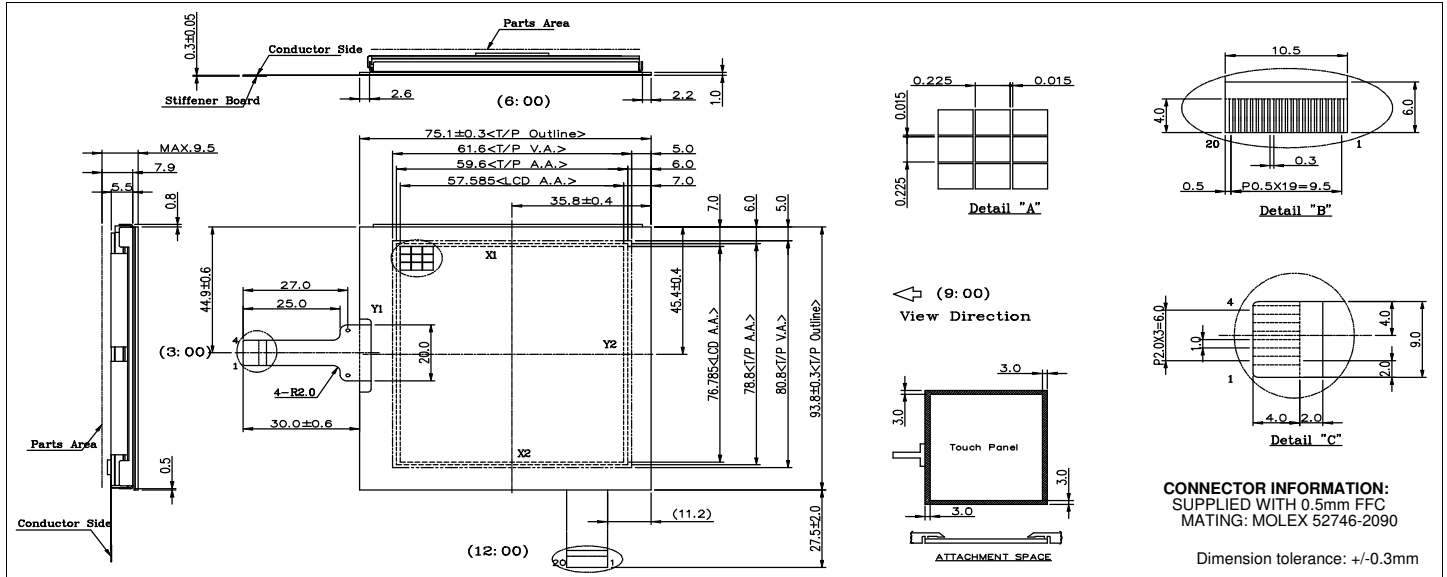


# HDM2432TSL-T

## Dimensional Drawing

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



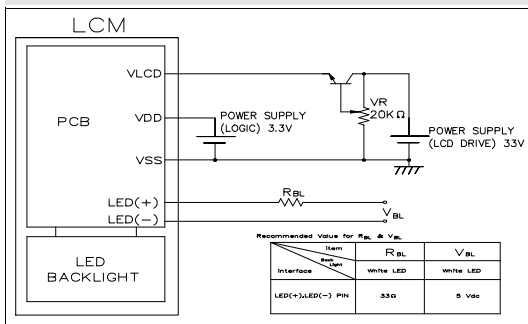
### Features

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

### Physical Data

- Module Size.....75.1W x 93.8H x 9.5T mm
- Viewing Area Size.....61.6W x 80.8H mm
- Dot Pitch.....0.24W x 0.24H mm
- Dot Size.....0.225W x 0.225H mm
- Weight.....73.4g

### Power Supply



### Electrical Characteristics (V<sub>DD</sub>=3.3±0.25V 25 °C)

| PARAMETER          | SYM              | CONDITION                             | MIN                 | TYP  | MAX                 | UNIT |
|--------------------|------------------|---------------------------------------|---------------------|------|---------------------|------|
| INPUT HIGH VOLTAGE | V <sub>IH</sub>  | -                                     | 0.8 V <sub>DD</sub> | -    | V <sub>DD</sub>     | V    |
| INPUT LOW VOLTAGE  | V <sub>IL</sub>  | -                                     | 0                   | -    | 0.2 V <sub>DD</sub> | V    |
| SUPPLY VOLTAGE     | V <sub>DD</sub>  | -                                     | 3.0                 | 3.3  | 3.6                 | V    |
|                    | V <sub>EE</sub>  | -                                     | 26.4                | 26.7 | 27.0                | V    |
| SUPPLY Current     | I <sub>DD</sub>  | V <sub>EE</sub> = 26.7V<br>FLM= 70 Hz | -                   | 0.1  | 0.2                 | mA   |
|                    | I <sub>EE</sub>  | -                                     | -                   | 2.9  | 4.4                 | mA   |
| LED BACKLIGHT      | I <sub>LED</sub> | V <sub>LED</sub> = 5V                 | -                   | 55   | 82                  | mA   |
| BRIGHTNESS         | L                | I <sub>LED</sub> = 55mA               | -                   | 8.3  | -                   | NIT  |
| DRIVE METHOD       | 1/320 DUTY       |                                       |                     |      |                     |      |

### Absolute Maximum Ratings

| PARAMETER              | SYMBOL                           | MIN  | MAX             | UNIT |
|------------------------|----------------------------------|------|-----------------|------|
| SUPPLY VOLTAGE         | V <sub>DD</sub> -V <sub>SS</sub> | -0.3 | 7.0             | V    |
| SUPPLY VOLTAGE FOR LCD | V <sub>DD</sub> -V <sub>EE</sub> | -0.3 | 30.0            | V    |
| INPUT VOLTAGE          | V <sub>IN</sub>                  | -0.3 | V <sub>DD</sub> | V    |
| OPERATING TEMPERATURE  | T <sub>OP</sub>                  | -20  | 70              | °C   |
| STORAGE TEMPERATURE    | T <sub>STG</sub>                 | -30  | 80              | °C   |

### Pin Connections

| PIN NO.                      | SYMBOL          | LEVEL         | FUNCTION                        |
|------------------------------|-----------------|---------------|---------------------------------|
| <b>DATA CONNECTOR</b>        |                 |               |                                 |
| 1                            | V <sub>DD</sub> | 3.3V          | Power supply for logic          |
| 2                            | SGND            | -             | Shield Ground                   |
| 3                            | V <sub>EE</sub> | -             | 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 <sub>SS</sub> | 0V            | Ground                          |
| 10                           | D0              | H/L           | Display data                    |
| 11                           | D1              | H/L           |                                 |
| 12                           | D2              | H/L           |                                 |
| 13                           | D3              | H/L           | Ground                          |
| 14                           | V <sub>SS</sub> | 0V            |                                 |
| 15                           | LED +           | -             |                                 |
| 16                           | LED-            | -             | Cathode for LED                 |
| 17                           | NC              | No Connection |                                 |
| 18                           | N/C             |               |                                 |
| 19                           | N/C             |               |                                 |
| 20                           | N/C             |               |                                 |
| <b>TOUCH PANEL CONNECTOR</b> |                 |               |                                 |
| 1                            | Y2              | -             | Touch Panel Connections         |
| 2                            | X2              | -             |                                 |
| 3                            | Y1              | -             |                                 |
| 4                            | X1              | -             |                                 |