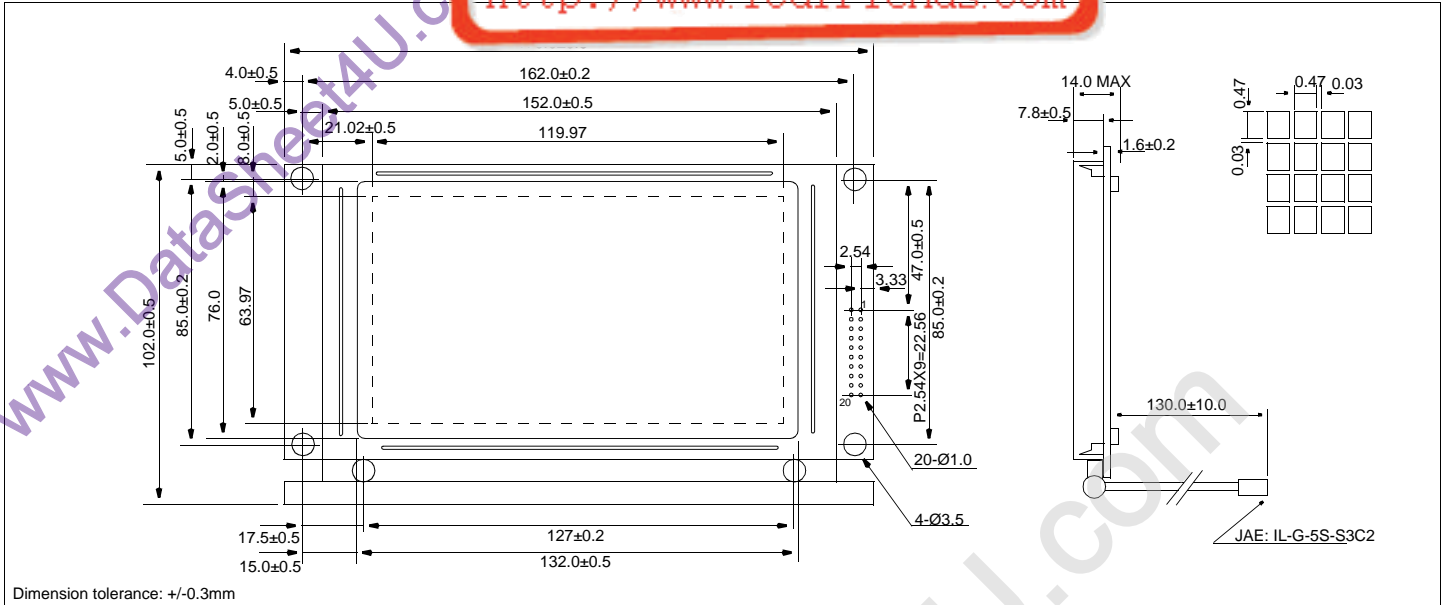


HDM128GS24Y-1

Dimensional Drawing

液晶之友 电话: 020-33819057
 Http://www.lcdfriends.com

240 X 128 dots Graphic, CCFL Backlight



Features

- Backlight.....CCFL
- Options.....Black and White FSTN
- Normal/Extended Temperature
- Bottom / Top Viewing
- Built-in Controller.....Toshiba T6963C

Physical Data

- Module Size.....170.0W x 102.0H x 14.0T mm
- Viewing Area Size.....128.0W x 74.0H mm
- Dot Pitch.....0.50W x 0.50H mm
- Dot Size.....0.47W x 0.47H mm
- Weight.....227g

Absolute Maximum Ratings

| PARAMETER | SYMBOL | MIN | MAX | UNIT |
|-----------------------|-----------------|-------|------|-------|
| SUPPLY VOLTAGE | $V_{DD}-V_{SS}$ | 0 | 7.0 | V |
| POWER SUPPLY FOR LCD | V_L | -29.0 | 7.0 | V |
| INPUT VOLTAGE | V_{IN} | 0 | 7.0 | V |
| CCFL VOLTAGE | V_{FL} | 0 | 1500 | Vrms |
| CCFL INPUT CURRENT | I_{FL} | - | 10.0 | mArms |
| OPERATING TEMPERATURE | T_{OP} | 0 | 50 | °C |
| STORAGE TEMPERATURE | T_{STG} | -20 | 60 | °C |

Electrical Characteristics (VDD=5.0±0.25V 25°C)

| PARAMETER | SYM | CONDITION | MIN | TYP | MAX | UNIT |
|----------------------|--------------|----------------|----------|------|----------|------|
| OPERATING VOLTAGE | V_{DD} | - | 4.5 | 5.0 | 5.5 | V |
| POWER SUPPLY FOR LCD | $V_{DD}-V_L$ | - | 17.1 | 17.8 | 18.6 | V |
| INPUT HIGH VOLTAGE | V_{IH} | - | V_{DD} | - | V_{DD} | V |
| INPUT LOW VOLTAGE | V_{IL} | - | 0 | - | 0.8 | V |
| OUTPUT HIGH VOLTAGE | V_{OH} | $I_{OH}=0.2mA$ | V_{DD} | - | V_{DD} | V |
| OUTPUT LOW VOLTAGE | V_{OL} | $I_{OL}=1.2mA$ | 0 | - | 0.4 | V |
| CCFL STARTING VOLT. | V_{FLS} | 0°C | 900 | - | - | Vrms |
| CCFL FREQUENCY | f_{FL} | - | 15 | 30 | 50 | kHz |
| POWER SUPPLY CURRENT | I_{DD} | $V_{DD}=5.0V$ | - | - | 18.0 | mA |
| DRIVE METHOD | 1/128 Duty | | | | | |

Pin Connections

| PIN NO. | SYMBOL | FUNCTION | |
|---------------------------------|----------|-----------------|---------------------------|
| DATA CONNECTOR | | | |
| 1 | FG | Frame ground | |
| 2 | V_{SS} | 0V | Ground |
| 3 | V_{DD} | 5V | Power supply for logic |
| 4 | V_L | -12.8V | Operating voltage for LC |
| 5 | WR | L | Data write |
| 6 | RD | L | Data read |
| 7 | CE | L | Chip enable |
| 8 | CD | H/L | H=Command, L=Data |
| 9 | N/C | No connection | |
| 10 | RESET | L | Reset |
| 11 | DB0 | H/L | Data bus |
| 12 | DB1 | H/L | |
| 13 | DB2 | H/L | |
| 14 | DB3 | H/L | |
| 15 | DB4 | H/L | |
| 16 | DB5 | H/L | |
| 17 | DB6 | H/L | |
| 18 | DB7 | H/L | |
| 19 | FS | H/L | Column select |
| 20 | RV | Display reverse | |
| CCFL CONNECTOR (IF USED) | | | |
| 1 | CCFL HOT | - | Power supply for the CCFL |
| 2 | N/C | No connection | |
| 3 | N/C | No connection | |
| 4 | N/C | No connection | |
| 5 | CCFL GND | - | Power supply for the CCFL |