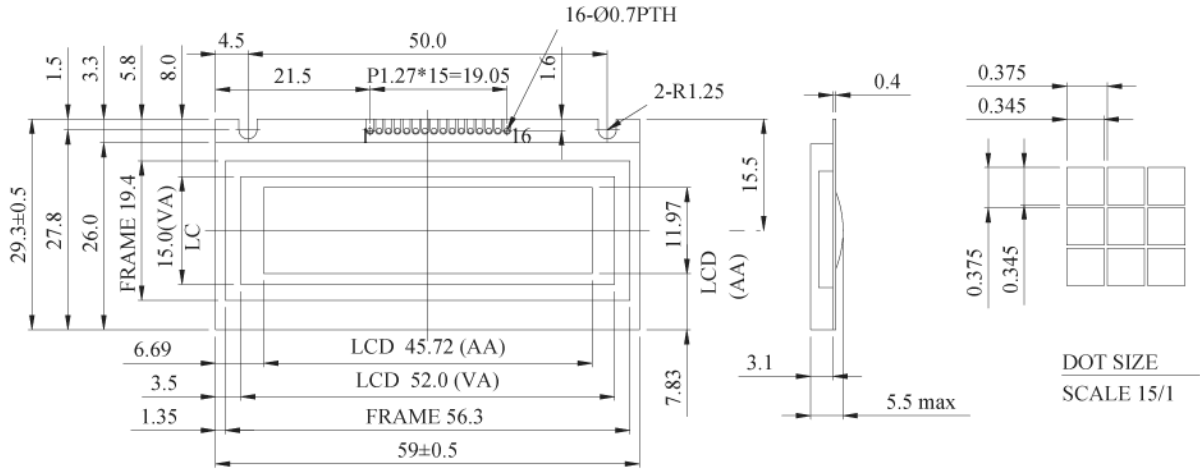


WG12232N Graphic 122x32 dots

Dimension drawing



Feature

1. Built-in controller ST7920
2. 1/32 duty cycle
3. N.V. optional for +3.0V power supply
4. Chinese version
5. Same size with WG12232D

Mechanical Data

| Item | Standard Value | Unit |
|------------------|----------------|------|
| Module Dimension | 59.0x29.3x5.5 | mm |
| Viewing Area | 52.0x15.0 | mm |
| Dot Size | 0.345x0.345 | mm |
| Dot Pitch | 0.375x0.375 | mm |

Graphic type

| Pin NO. | Symbol | Function |
|---------|--------|-----------------------------|
| 1 | VLED | B/L Selected |
| 2 | Vss | Ground |
| 3 | Vdd | Supply voltage for logic |
| 4 | Vo | Operating voltage for LCD |
| 5 | RS | H: Date, L: Instruction |
| 6 | E | Enable signal |
| 7 | VOOUT | Positive Voltage Output |
| 8 | DB0 | Data bus line |
| 9 | DB1 | Data bus line |
| 10 | DB2 | Data bus line |
| 11 | DB3 | Data bus line |
| 12 | DB4 | Data bus line |
| 13 | DB5 | Data bus line |
| 14 | DB6 | Data bus line |
| 15 | DB7 | Data bus line |
| 16 | R/W | H: read date, L: write date |

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 | --- | VDD | V |

Note: VSS=0 Volt, VDD=5.0 Volt.

Electrical Characteristics

| Item | Symbol | Condition | Standard Value | | | Unit |
|--|--------|-----------------------------------|----------------|------|------|-------------------|
| | | | min | typ. | max | |
| Input Voltage | VDD | --- | 4.5 | 5.0 | -5.5 | V |
| Supply Current | IDD | VDD=5V | 0.8 | 1.0 | 1.5 | mA |
| Recommended LC Driving Voltage for Normal Temp. Version module | VDD-VO | -20°C | --- | --- | 5.8 | V |
| | | 25°C | --- | 4.0 | --- | |
| | | 70°C | 3.2 | --- | --- | |
| CCFL Starting Voltage | VFL | 25°C | --- | --- | --- | Vrms |
| CCFL Driving Voltage | VFLD | 25°C | --- | --- | --- | Vrms |
| CCFL Driving Current | IFLD | V _{FQ} =450V/ms 30KHz | --- | --- | --- | mA _{rms} |
| LED Forward Voltage | VF | 25°C | 4.0 | 4.2 | 4.4 | V |
| LED Forward Current | IF | 25°C | 30 | 40 | 60 | mA |
| EL Power Supply Current | IEF | V _{el} =110VAC/400Hz | --- | --- | 5.0 | mA |