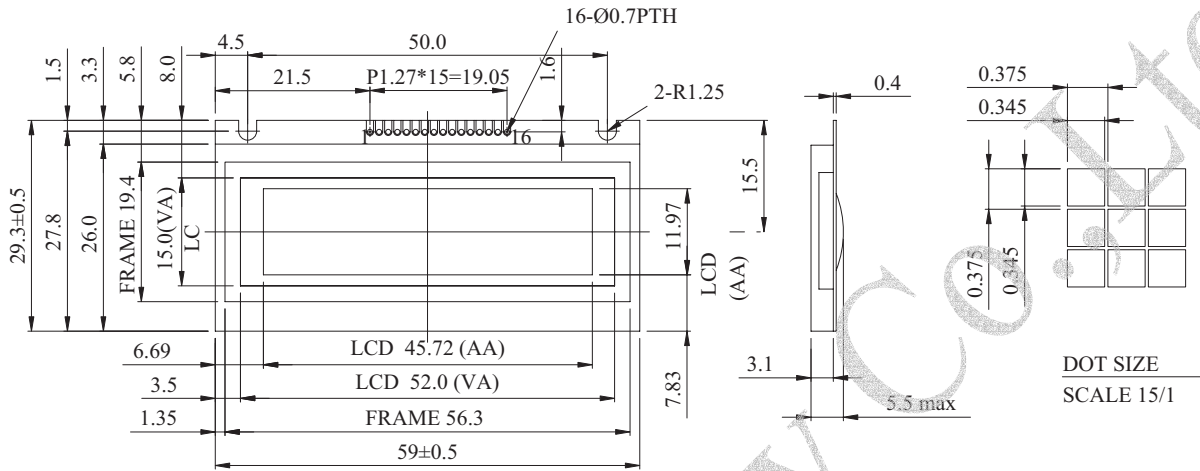


**WG12232N** Graphic 122x32 dots

**Dimension drawing**



DOT SIZE  
SCALE 15/1

Graphic type

**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

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.

**Electronical 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 <sub>FQ</sub> =450Vrms 30KHz	---	---	---	mA <sub>rms</sub>
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 <sub>el</sub> =110VAC/400Hz	---	---	5.0	mA