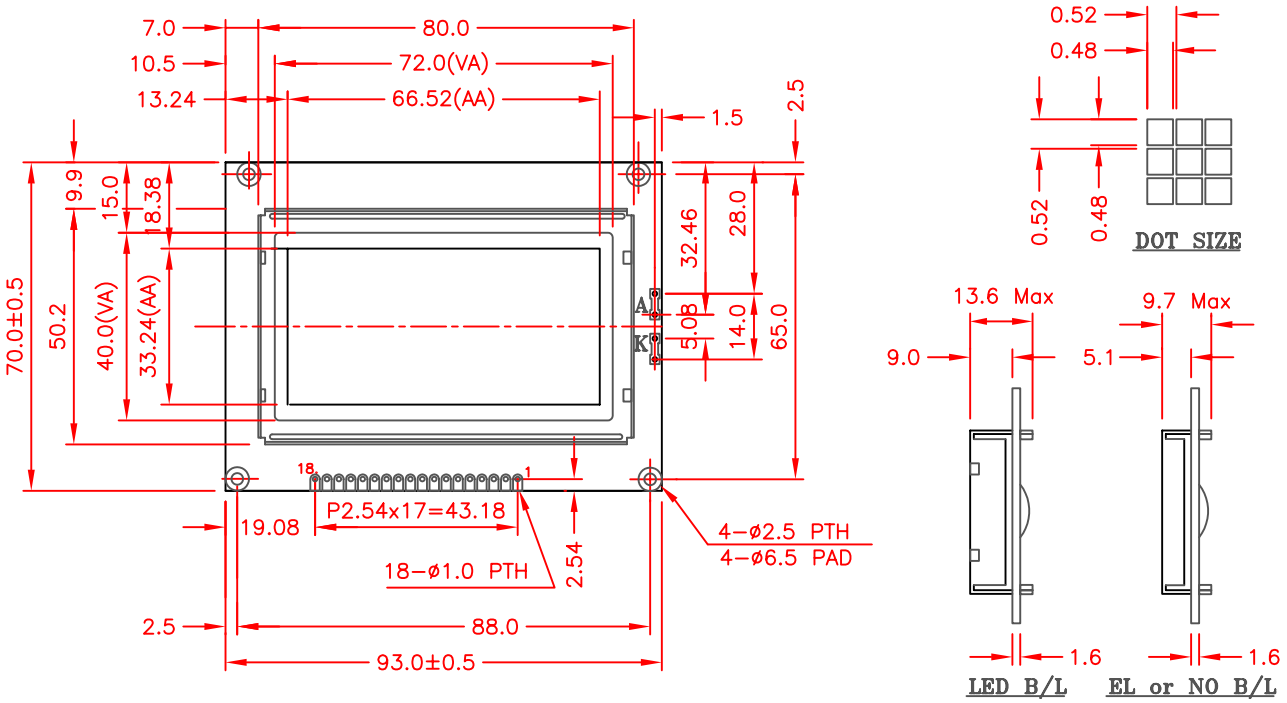

Feature

1. Character mode:
   Display BIG5 or GB Chinese font(16x16 dots)
   and ASCII code (8x16 dots)
2. Graphic mode: 128x64 dots
3. Built in controller (ST7920)
4. +5V power supply
5. 1/32 duty cycle
6. LED can be driven by A and K
7. N.V. option

Pin Assignment

Pin	Symbol	Function
1	Vss	GND
2	Vdd	Power supply (+5V)
3	V0	Positive voltage input for LCD
4	RS	Register select signal
5	$\overline{RW}$	Data read/ write
6	E	H→L Enable signal
7	DB0	Data bus line
8	DB1	Data bus line
9	DB2	Data bus line
10	DB3	Data bus line
11	DB4	Data bus line
12	DB5	Data bus line
13	DB6	Data bus line
14	DB7	Data bus line
15	A	Power supply for B/L
16	K	Power supply for B/L
17	$\overline{RST}$	Reset supply for B/L
18	Vout	Positive Voltage output

Mechanical Data

Item	Standard Value	Unit
Module Dimension	93.0 x 70.0	mm
Viewing Area	72.0 x 40.0	mm
Mounting hole	88.0 x 65.0	mm
Dot Pitch	0.52 x 0.52	mm

Absolute Maximum Rating

Item	Symbol	Standard Value			Unit
		min.	typ.	max.	
Power Supply	VDD-VSS	4.5	5.0	5.5	V
Input Voltage	VI	-0.3	--	VDD	V

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

Electronical Characteristics

Item	Symbol	Condition	Standard Value			Unit
			min.	typ.	max.	
Input Voltage	VDD	L level	$0.7V_{DD}$	--	V_{DD}	V
	VIO	H level	0	--	$0.3V_{DD}$	V
Supply Current	IDD	VDD=+5V	--	3.6	3.9	mA
Recommended LC Driving Voltage for Normal Temp. Version module	VDD-V0	-20°C	7.1	7.6	3.9	V
		0°C	--	--	--	
		25°C	6.1	6.6	7.1	
		50°C	--	--	--	
		70°C	5.0	5.5	6.0	
LED Forward Voltage	VF	25°C	--	4.2	4.6	V
LED Foward Current	IF	25°C	--	330	660	mA
EL Power Supply Current	IEL	Vel=110VAC;400Hz	--	--	5.0	mA

Display Character Address Code

Display position	1	2	3	4	5	6	7	8	9	10	11	12	13	---	16
DD RAM Address	80	81													8F
DD RAM Address	90	91													9F
DD RAM Address	A0	A1													AF
DD RAM Address	B1	B0													BF

17171 Murphy Ave. Irvine, CA 92614-5915 Tel: 949-417-8070 Fax: 949-417-8075 Web site: www.shellyinc.com