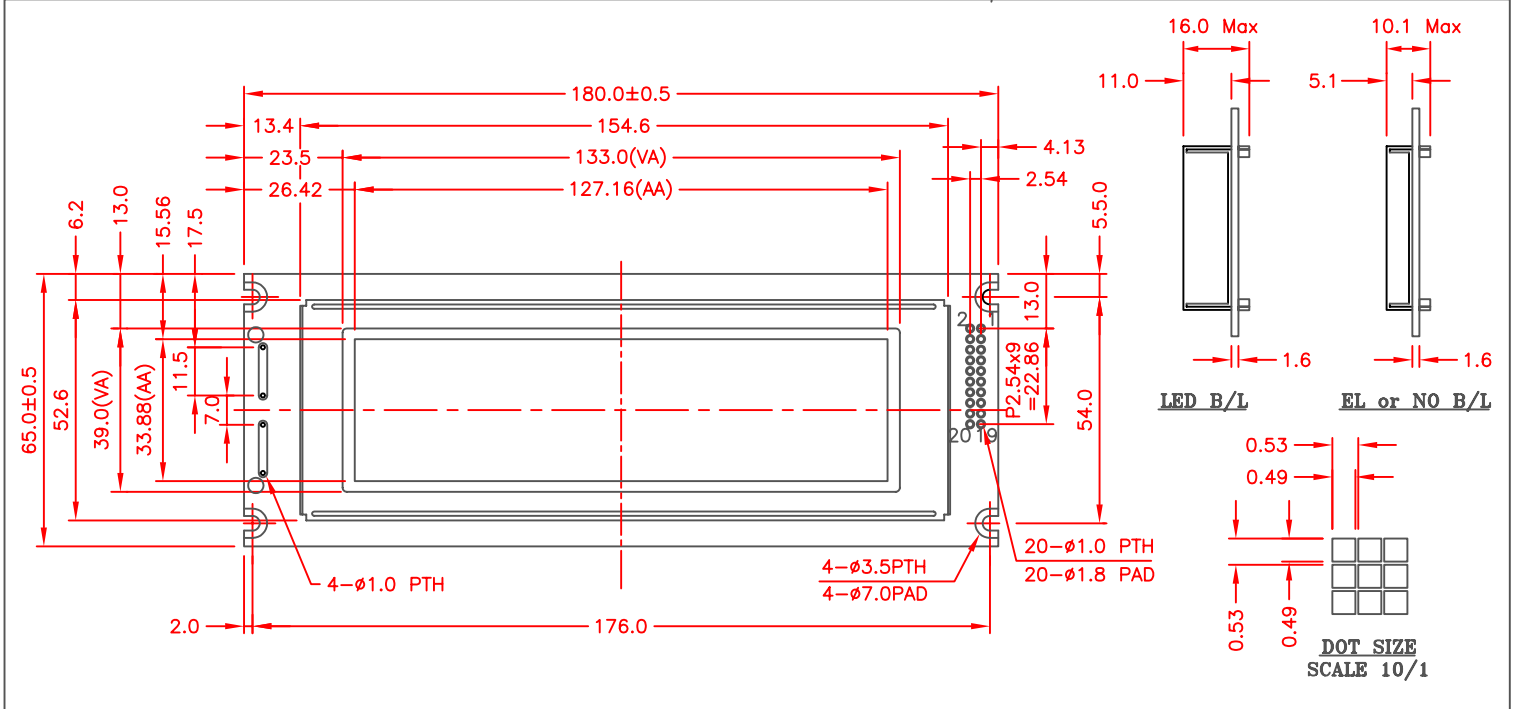


**SHELLY**

64x240 dots Graphic

SGM24006433

**Feature**

1. Built in controller (RA8822) or equivalent
2. +5V power supply 2.7-5.0(selectable)
3. 1/64 duty cycle
4. Built-in N/V.

**Pin Assignment**

Pin	Symbol	Function
1	A	Power Supply for B/L
2	VSS	GND
3	Vdd	Power Supply for logic
4	Vo	Operating voltage LCD driving
5	WR	8080family:Read signal, 6800family:Enable clock
6	RD	8080family:write signal, 6800family:RW signal
7	CE	Chip enable
8	C/D	H: Instruction L: data
9	VEE	Negative voltage output
10	RES	Reset
11	DB0	Data bus line
12	DB1	Data bus line
13	DB2	Data bus line
14	DB3	Data bus line
15	DB4	Data bus line
16	DB5	Data bus line
17	DB6	Data bus line
18	DB7	Data bus line
19	Busy	Ra8802 statis
20	INT	programmable interrupt output

**Mechanical Data**

Item	Standard Value	Unit
Module Dimension	180.0 x 65.0	mm
Viewing Area	133.0 x 65.0	mm
Dot Size	0.49 x 0.49	mm
Dot Pitch	0.53 x 0.53	mm
Mounting Hole	176.0 x 54.0	mm

**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	-0.3	--	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 <sub>DD</sub>	--	V <sub>DD</sub>	V
	VIO	H level	0	--	0.3V <sub>DD</sub>	V
Supply Current	IDD	VDD=+5V	--	29	--	mA
Recommended LC Driving Voltage for Normal Temp. Version module	VDD-V0	-20°C	13.0	13.5	14.1	V
		0°C	12.5	13.1	13.7	
		25°C	--	12.5	--	
		50°C	11.1	12.2	13.0	
		70°C	9.1	11.6	12.8	
LED Forward Voltage	V <sub>F</sub>	25°C	--	4.2	4.6	V
LED Forward Current	I <sub>F</sub>	25°C	--	450	900	mA
CCFL	V <sub>F</sub>	25°C	--	215	650	V
	I <sub>F</sub>	25°C	--	--	5.0	
EL	I <sub>EL</sub>	V <sub>el</sub> =110VAC;400Hz	--	--	5.0	mA