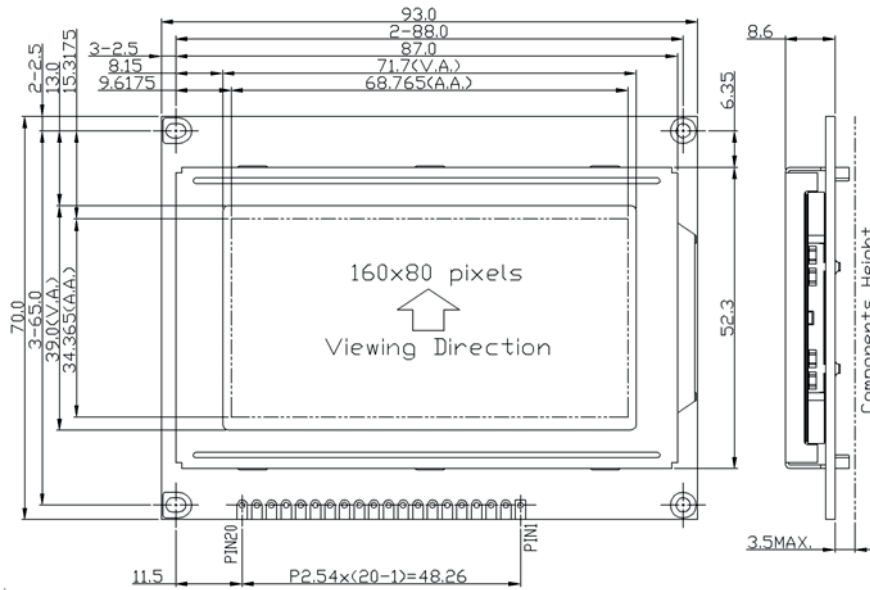


## OUTLINE DRAWING



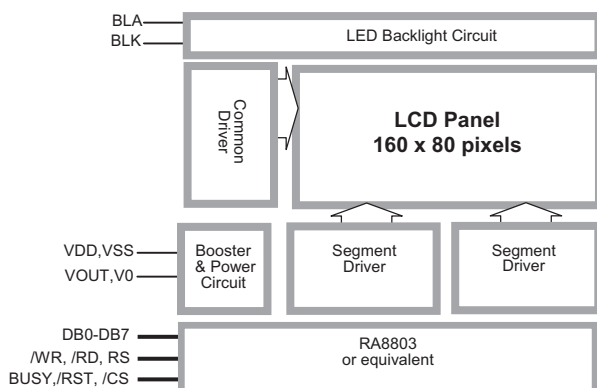
## TERMINAL FUNCTIONS\*

Pin No.	Symbol	Descriptions	
		Parallel Mode (PSB=H)	Serial Mode (PSB=L)
1	VSS	0V Power Supply, Ground	
2	VDD	Positive Power Supply	
3	V0	LCD Contrast Reference Input	
4	RS	Register Select RS=HIGH, Transferring Display Data RS=LOW: Transferring Instruction Data	
5	/WR	Write enable input, active LOW	
6	/RD	Read enable input, active LOW	
7	DB0	8-bit bi-directional data bus	
:	:		
14	DB7		
15	/CS	Chip Enable Signal	
16	BUSY	Controller busy signal	
17	/RST	Reset Signal /RST=L, Reset the LCD Module /RST=H, Normal Running	
18	VOUT	Power Booster Output for V0	
19	BLA	LED Backlight Positive Power Supply	
20	BLK	LED Backlight Negative Power Supply	

## DISPLAY CHARACTERISTICS

Item	Value
LCD Display Mode*	STN-Gray, Positive, Transflective
Viewing Angle	6:00
Driving Method	1/80duty, 1/10 bias
Backlight#	White LED backlight

## BLOCK DIAGRAM



## MECHANICAL DATA

Item	Value
Outline (mm)	93.0 x 70.0 x 12.1 MAX.
Viewing Area (mm)	71.7 x 39.0
Active Area (mm)	68.765 x 34.365
Dot Pitch (mm)	0.43 x 0.43
Dot Size (mm)	0.395 x 0.395

## ABSOLUTE MAXIMUM

Item	Symbol	Min	Max
Operating Voltage (V)	V <sub>DD</sub>	0	+5.5
Operating Temperature (°C)	T <sub>OP</sub>	-20	+70
Storage Temperature (°C)	T <sub>ST</sub>	-30	+80

## ELECTRICAL CHARACTERISTICS\*

Item	Symbol	Min	Typ	Max
Operating Voltage (V)	V <sub>DD</sub>	4.7	5.0	5.3
Input High Voltage (V)	V <sub>IH</sub>	0.8V <sub>DD</sub>	-	V <sub>DD</sub>
Input Low Voltage (V)	V <sub>IL</sub>	V <sub>SS</sub>	-	0.4
Operating Current (mA)	I <sub>DD</sub>	-	13	35

## BACKLIGHT CHARACTERISTICS

Item	Symbol	Min	Typ	Max
Forward Voltage (V)	V <sub>fBLA</sub>	-	5.0	-
Forward Current (mA)	I <sub>fBLA</sub>	-	68	90

## LM8053 series

Item	Highlight		
	# Backlight	* LCD Mode	** Voltage
LM8053*	White LED	STN-Gray	5.0V

For similar product or (semi) custom made LCD module, please visit our web site or contact us.

\*The above product information is based on this model.