LCD / LCM SPECIFICATION

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RG12232E

General Specification

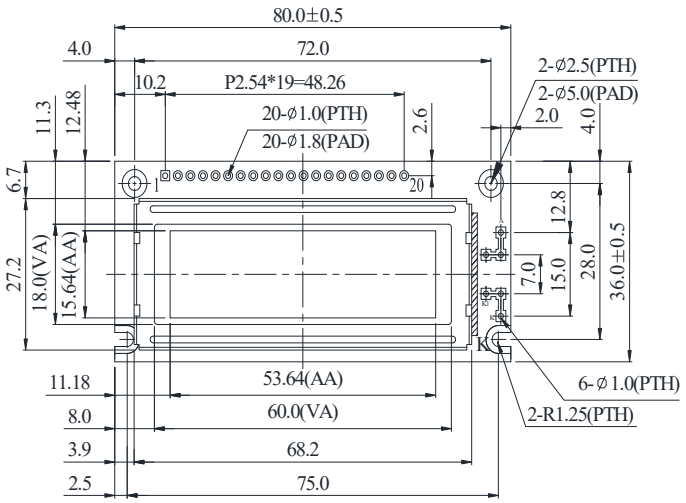
The Features of the Module is description as follow:

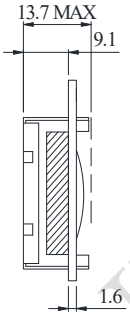
- Module dimension: 80.0 x 36.0 x 13.7 (max.) mm
- View area: 60.0 x 18.0 mm
- Active area: 53.64 x 15.64 mm
- Number of Dots: 122 x 32
- Dot size: 0.4 x 0.45 mm
- Dot pitch: 0.44 x 0.49 mm
- Duty: 1/32
- Backlight Type: LED
- IC: SBN1661G

Interface Pin Function

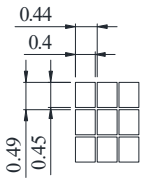
Pin No.	Symbol	Level	Description
1	V_{SS}	0V	GND
2	Vdd	3.0V	Power supply for logic
3	Vo	(Variable)	Contrast Adjustment
4	A0	H/L	H : Data L : Instruction
5	CS1	H/L	Chip select signal for IC1
6	CS2	H/L	Chip select signal for IC2
7	CL	—	External clock 2KHZ
8	E	H/L	Enable Signal
9	R/ W	H/L	H : Read data; L : Write data
10	DB0	H/L	Data bus line
11	DB1	H/L	Data bus line
12	DB2	H/L	Data bus line
13	DB3	H/L	Data bus line
14	DB4	H/L	Data bus line
15	DB5	H/L	Data bus line
16	DB6	H/L	Data bus line
17	DB7	H/L	Data bus line
18	/RES	H/L	Reset the LCM
19	Vee	—	Negative voltage output
20	NC	—	No connection

Contour Drawing





PIN NO.	SYMBOL
1	Vss
2	Vdd
3	Vo
4	A0
5	CS1
6	CS2
7	CL
8	E
9	R/$\overline{W}$
10	DB0
11	DB1
12	DB2
13	DB3
14	DB4
15	DB5
16	DB6
17	DB7
18	/RES
19	A
20	K



DOT SIZE
SCALE 10/1

The non-specified tolerance of dimension is ±0.3mm.

Absolute Maximum Ratings

Item	Symbol	Min	Typ	Max	Unit
Operating Temperature	T_{OP}	-20	–	+70	℃
Storage Temperature	T_{ST}	-30	–	+80	℃
Input Voltage	V_I	-0.3	–	V_{DD}+0.3	V
Supply Voltage For Logic	V_{DD}-V_{SS}	-0.3	–	+6.0	V
LCD bias voltage	V_{LCD}	3.5	–	13	V

Electrical Characteristics

Item	Symbol	Condition	Min	Typ	Max	Unit
Supply Voltage For Logic	V_{DD}-V_{SS}	–	2.7	3.3	3.6	V
Supply Voltage For LCD	V_{DD}-V_0	Ta=-20℃	–	–	5.8	V
		Ta=25℃	4.2	–	4.5	V
		Ta=+70℃	3.9	–	–	V
Input High Volt.	V_{IH}	V_{DD} =3.3V	2.7	3.3	V_{DD}+0.5	V
Input Low Volt.	V_{IL}	–	0	0.7	1.1	V
Output High Volt.	V_{OH}	–	V_{DD}-0.3	–	V_{DD}	V
Output Low Volt.	V_{OL}	–	0	–	0.3	V
Supply Current	I_{DD}	V_{DD}=3.0V	–	5.0	–	mA