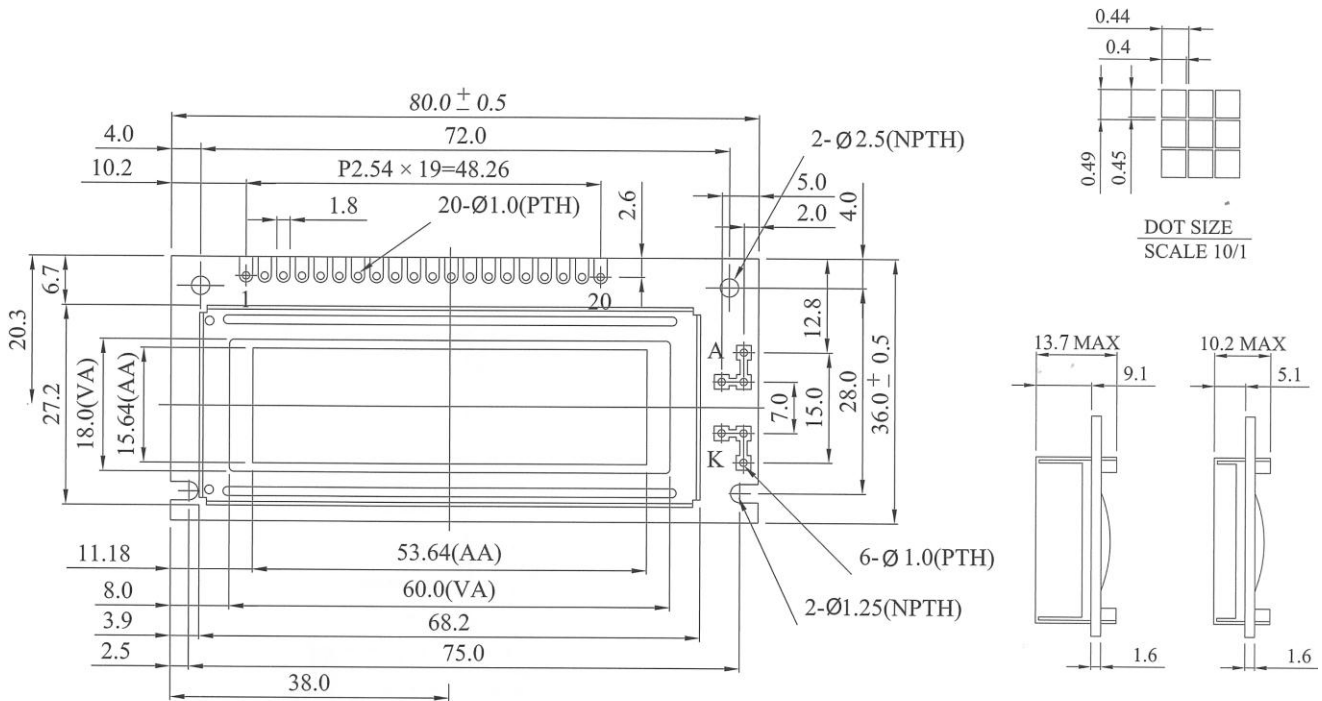


MSG12232E/J

Graphic 122x32 dots

GMS.

■ ■ ■ DISPLAY SYSTEMS



LED B/L

EL or NO B/L

Feature		
1. Available for internal (J type), External (E type) oscillation 2KHz		
2. Built-in controller Avant (SBN1661G) or equivalent		
3. 1/32 duty cycle		
4. N.V. optional for +3V power supply		
Pin	Symbol	Function
1	Vss	GND
2	Vdd	Power supply +5V
3	Vo	Contrast Adjustment
4	Ao	H->Data L->Instruction
5	CS1	L->Chip1 Enable
6	CS2	L->Chip2 Enable
7	CL / NV	External clock 2KHz (E type) / Negative Voltage Option (J type)
8	NC / E	No connection (J type) / Enable signal (E type)
9	R/W	H: read Data L: write Data
10	DB0	Data bus line
11	DB1	Data bus line
12	DB2	Data bus line
13	DB3	Data bus line
14	DB4	Data bus line
15	DB5	Data bus line
16	DB6	Data bus line
17	DB7	Data bus line
18	RES	H->L Reset the LCM
19	A / Vee	Power supply for B/L(+) / Negative voltage output
20	K	Power supply for B/L(-)

Mechanical Data					
Item	Standard Value	Unit			
Module Dimension	80.0 x 36.0	mm			
Viewing Area	60.0 x 18.0	mm			
Mounting Hole	75.0 x 28.0	mm			
Dot Pitch	0.44 x 0.49	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	---	Vdd	V

Note: Vss=0 V, Vdd=5.0 V

Electronical Characteristics						
Item	Symbol	Condition	Standard Value			Unit
			min	typ	max	
Input Voltage	Vdd	Vdd=±5V	4.5	5.0	5.5	V
Supply Current	Idd	Vdd=5V	---	1.0	1.4	mA
Recommended LC Driving Voltage for normal Temperature Version module	Vdd-Vo	-20°C	4.9	5.0	5.1	V
		0°C	4.7	4.8	4.9	
		25°C	4.6	4.7	4.8	
		50°C	4.3	4.4	4.7	
		70°C	4.1	4.2	4.5	

See Specification for Backlight information.

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