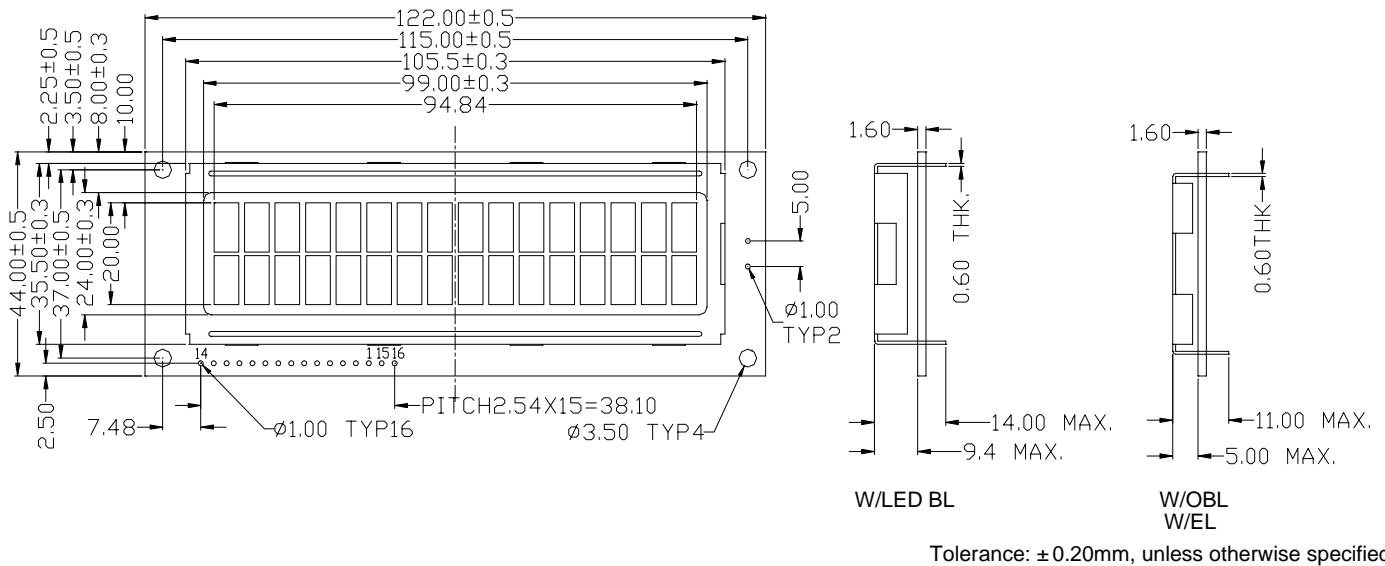


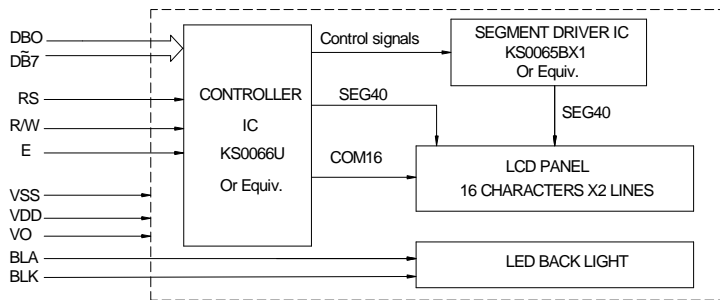
# Standard LCD module

# MC1602-03

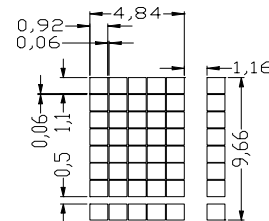
## OUTLINE DIMENSION



## BLOCK DIAGRAM



## DISPLAY PATTERN



## MECHANICAL SPECIFICATION

Item	Dimensions(W)X(H)	Unit
Overall Size	122x44.0	MM
View Area	99.0x24.0	MM
Character	4.84x9.66	MM
Dot Size	0.92x1.10	MM
Dot Pitch	0.98x1.16	MM

## PIN ASSIGNMENT

Pin no	Symbol	Function
1	VSS	Power Supply(GND)
2	VDD	Power Supply(+)
3	VO	Contrast Adjust
4	RS	Command data input
5	R/W	Data read/write
6	E	Enable signal
7-14	DB0~DB7	Data bus line
15	BLA	Back light anode
16	BLK	Back light cathode

## ABSOLUTE MAXIMUM RATING

Item	Symbol	Condition	Min	Max	Unit
Supply for logic voltage	V <sub>DD</sub>	25°C	-0.3	7.0	V
LCD driving supply voltage	V <sub>DD-VO</sub>	25°C	-0.3	V <sub>DD</sub> +0.3	V
Input voltage	V <sub>I</sub>	25°C	-0.3	V <sub>DD</sub> +0.3	V

## ELECTRICAL CHARACTERISTICS

Item	Symbol	Condition	Min	Typical	Max	Unit
Supply voltage for logic	V <sub>DD</sub>	---	4.5	5.0	5.5	V
Supply current for logic	I <sub>DD</sub>	---	---	1.38	3	mA
Operation voltage for LCD	V <sub>DD-VO</sub>	0°C	4.7	5.0	5.3	V
		25°C	4.5	4.8	5.1	V
		50°C	4.4	4.7	5.0	V
Input voltage " H " level	V <sub>IH</sub>	---	2.2	---	V <sub>DD</sub>	V
Input voltage " L " level	V <sub>IL</sub>	---	-0.3	---	0.6	V
Supply voltage for back light	V <sub>F</sub>	---	---	4.2	4.6	V
Supply current for back light	I <sub>F</sub>	V <sub>F</sub> =4.2V	---	240	480	mA

## REMARKS:

- LCD options: STN, TN, FSTN.
- Back light Options: LED/EL Back light feature.