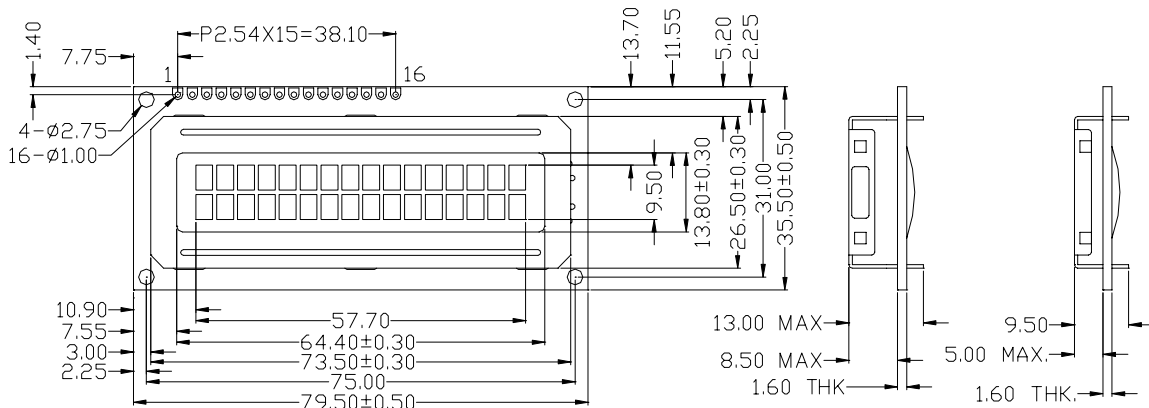


**Standard LCD module**

**MC1602-18**

**OUTLINE DIMENSION**



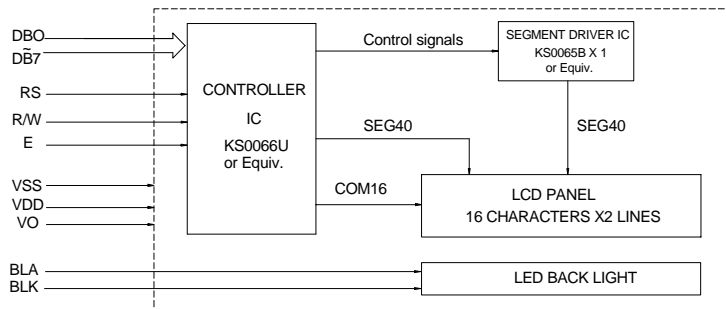
W/LED BL

W/O BL

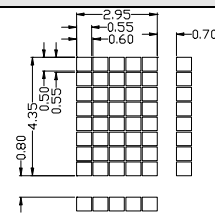
W/EL

Tolerance: ± 0.20mm, unless otherwise specified.

**BLOCK DIAGRAM**



**DISPLAY PATTERN**



**MECHANICAL SPECIFICATION**

Item	Dimensions(W)X(H)	Unit
Overall Size	79.5x35.5	MM
View Area	64.4x13.8	MM
Character	2.95x4.35	MM
Dot Size	0.55x0.50	MM
Dot Pitch	0.60x0.55	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	VDD	25°C	-0.3	7.0	V
LCD driving supply voltage	VDD-Vo	25°C	-0.3	VDD+0.3	V
Input voltage	VI	25°C	-0.3	VDD+0.3	V

**ELECTRICAL CHARACTERISTICS**

Item	Symbol	Condition	Min	Typical	Max	Unit
Supply voltage for logic	VDD	---	4.5	5.0	5.5	V
Supply current for logic	IDD	---	---	1.38	3	mA
Operation voltage for LCD	VDD-Vo	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	VIH	---	2.2	---	VDD	V
Input voltage " L " level	VIL	---	-0.3	---	0.6	V
Supply voltage for back light	VF	---	---	4.2	4.6	V
Supply current for back light	IF	VF=4.2V	---	100	200	mA

**REMARKS:**

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