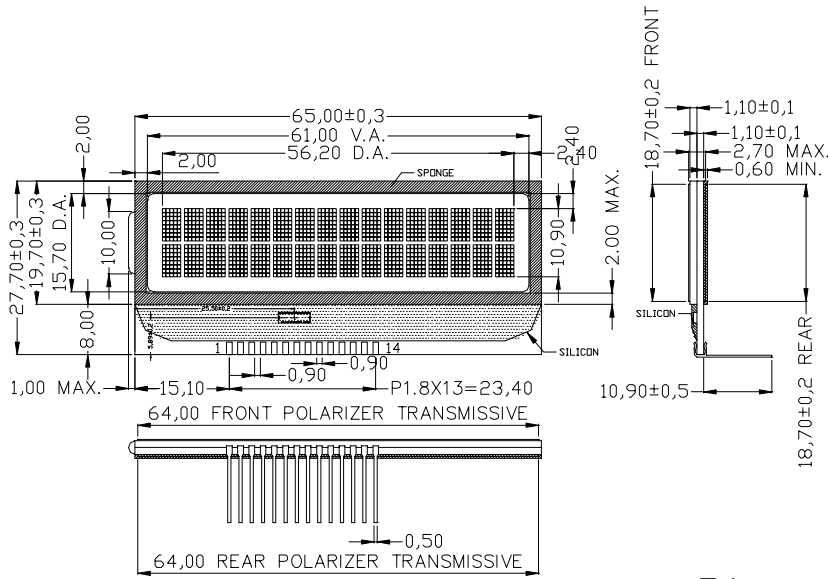


Standard LCD module

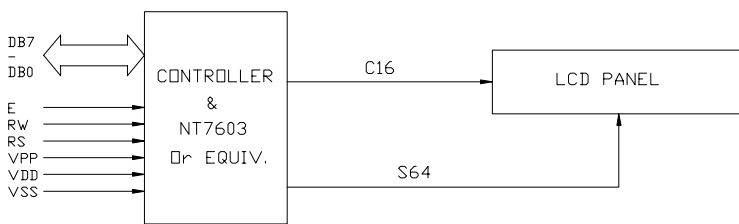
MC1602-19

OUTLINE DIMENSION

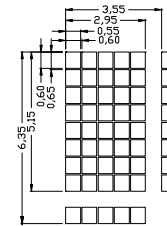


Tolerance: ±0.20mm, unless otherwise specified.

BLOCK DIAGRAM



DISPLAY PATTERN



MECHANICAL SPECIFICATION

Item	Dimensions(W)X(H)	Unit
Overall Size	65.0 × 27.7	MM
View Area	61.0 × 15.7	MM
Character	2.95 × 5.15	MM
Dot Size	0.55 × 0.60	MM
Dot Pitch	0.60 × 0.65	MM

PIN ASSIGNMENT

Pin no	Symbol	Function
1~8	DB0-DB7	Data bus line
9	E	Chip enable signal
10	RW	H: Read mode L: Write mode
11	RS	H: Data L: instruction cod
12	V _{PP}	Input voltage for LCD
13	V _{DD}	Supply voltage for logic
14	V _{SS}	Power Supply(GND)

ABSOLUTE MAXIMUM RATING

Item	Symbol	Condition	Min	Max	Unit
Supply for logic voltage	V _{DD}	25°C	-0.3	7.0	V
LCD driving supply voltage	V _{PP}	25°C	V _{DD} -0.3	V _{DD} +7.0	V
Input voltage	V _I	25°C	-0.3	V _{DD} +0.3	V

ELECTRICAL CHARACTERISTICS

Item	Symbol	Condition	Min	Typical	Max	Unit
Supply voltage for logic	V _{DD}	---	4.3	4.7	5.1	V
Supply current for logic	I _{DD}	---	---	0.70	1	mA
Operation voltage for LCD	V _{PP} -V _{SS}	---	4.3	4.7	5.1	V
Input voltage " H " level	V _{IH}	---	2.2	---	V _{DD}	V
Input voltage " L " level	V _{IL}	---	-0.3	---	0.6	V

REMARKS:

- LCD type: STN.
- Back light type: Without back light feature.