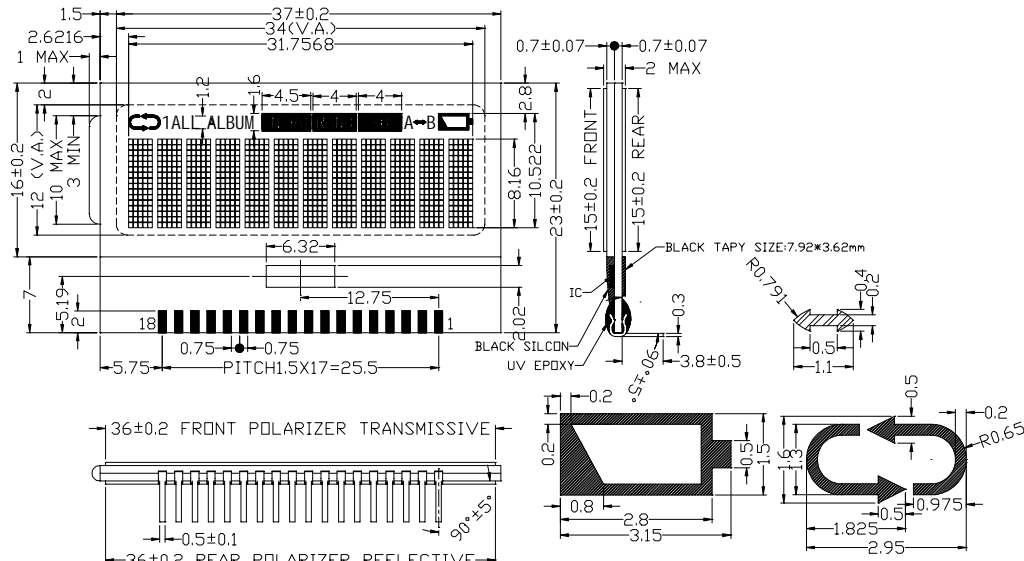


Standard LCD module

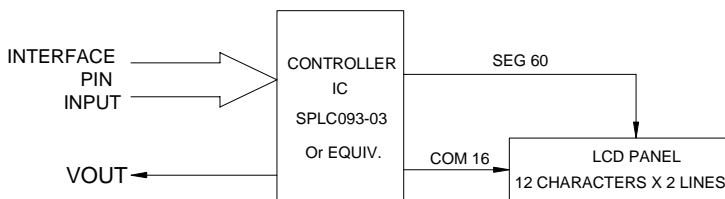
MC1202-01

OUTLINE DIMENSION

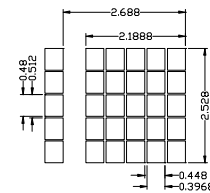


Tolerance: $\pm 0.20\text{mm}$, unless otherwise specified.

BLOCK DIAGRAM



DISPLAY PATTERN



MECHANICAL SPECIFICATION

Item	Dimensions(W)X(H)	Unit
Overall Size	37.0 x 23.0	MM
View Area	34.0 x 12.0	MM
Character	2.188 x 2.528	MM
Dot Size	0.396 x 0.48	MM
Dot Pitch	0.448 x 0.512	MM

PIN ASSIGNMENT

Pin no	Symbol	Function
1	RS	Register selection input
2	CSB	Chip selection input
3	SI	Serial data input
4	SCL	Serial clock input
5	VDD	Power supply
6	VSS	Ground
7~11	V0-V4	LCD biasing voltages
12	VR	Voltage adjust pin
13	VOUT	Voltage booster output
14	CAP2-	Voltage booster cap(-)
15	CAP+	Voltage booster cap(+)
16	CAP1-	Voltage booster cap(-)
17	CAP1+	Voltage booster cap(+)
18	RESETB	Reset input

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 _{LCD}	25°C	4.0	6.0	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}	---	2.4	5.0	5.5	V
Supply current for logic	I _{DD}	---	---	150	250	uA
Operation voltage for LCD	V _{OP}	---	4.0	5.0	6.0	V
Input voltage " H " level	V _{IH}	---	0.7V _{DD}	---	V _{DD}	V
Input voltage " L " level	V _{IL}	---	VSS	---	0.3V _{DD}	V

REMARKS:

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