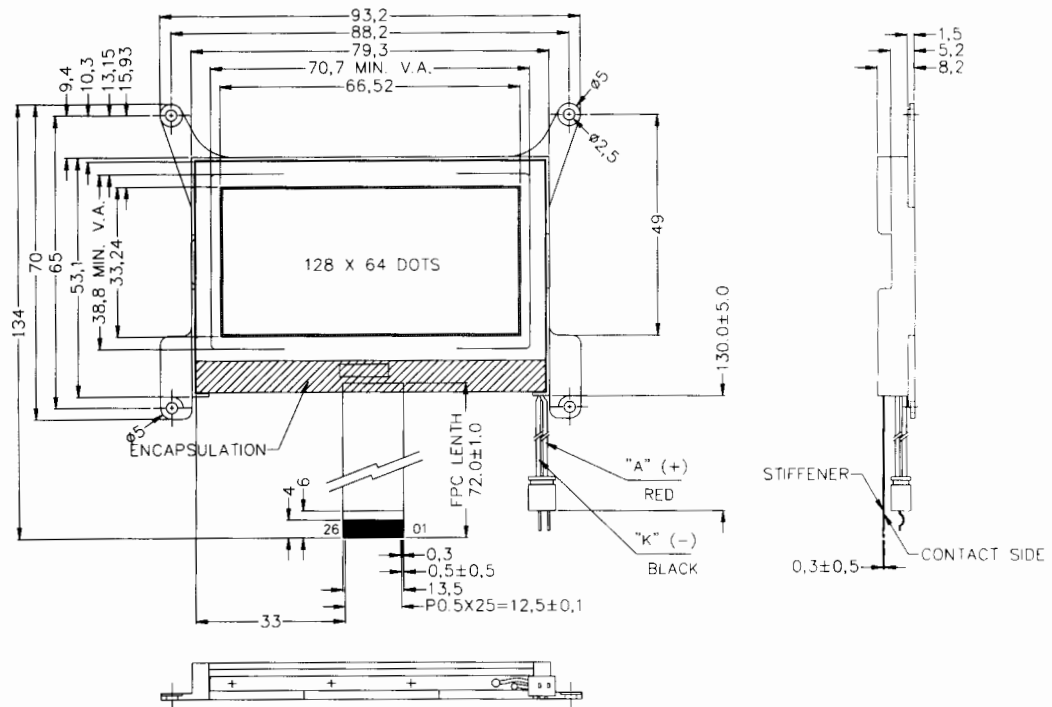
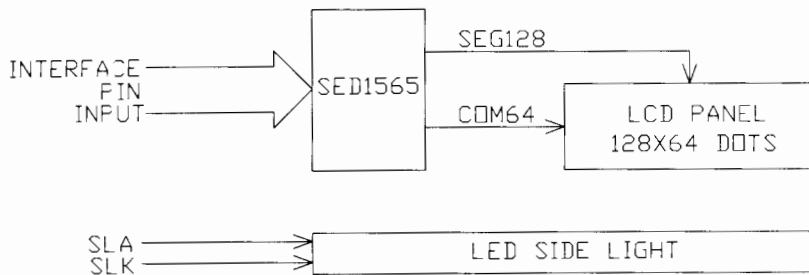


OUTLINE DIMENSION

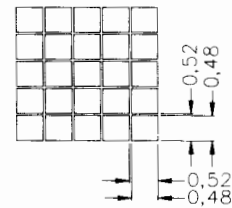


Graphic Type

BLOCK DIAGRAM



DISPLAY PATTERN



MECHANICAL SPECIFICATION

Item	Dimensions (W) X (H)	Unit
Overall Size	93.2 X 70.0	MM
View Area	70.7 X 38.8	MM
Dot Size	0.48 X 0.48	MM
Dot Pitch	0.52 X 0.52	MM

PIN ASSIGNMENT

Pin No.	Symbol	Level	Description
1	CS1	H-L	Chip select signal
2	/RESET	H-L	Reset
3	A0	H/L	H: D0-D7 display data, L: D0-D7 control data
4	/WR	H-L	8080: Active LOW, 6060: H -> read, L -> write
5	/RD	H-L	8080: Active LOW, 6060: HIGH
6-13	D0-D7	H/L	Parallel data input
14	V _{DD}	---	Power supply
15	V _{SS}	---	Power supply
16	V _{OUT}	---	DC/DC voltage converter
17	CAP3-	---	DC/DC voltage converter
18	CAP1+	---	DC/DC voltage converter
19	CAP1-	---	DC/DC voltage converter
20	CAP2-	---	DC/DC voltage converter
21	CAP2+	---	DC/DC voltage converter
22-26	V1-V5	---	LCD operating voltage

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	-18	0.3	V
Input voltage	V _I	25°C	-0.3	V _{DD} +0.3	V

ELECTRICAL CHARACTERISTICS

Item	Symbol	Condition	Value	Unit
Supply voltage for logic and for converter voltage	V _{DD}	25°C	2.8+/-0.1	V
Supply voltage for LCD	V _{LCD}	25°C	9.0+/-0.1	V
Consumption voltage of the whole LCD module	V _{OUT}	25°C	10.0+/-0.2	V
Input voltage	V _I	25°C	680(max)	uA

REMARKS:

- LCD options: STN, FSTN.
- Back light Options: EL Back light feature, other Specs not available on catalog is under request.