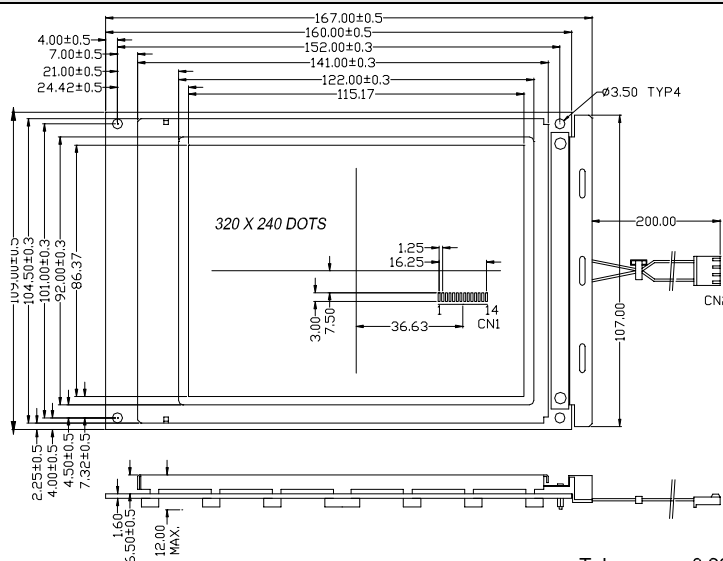
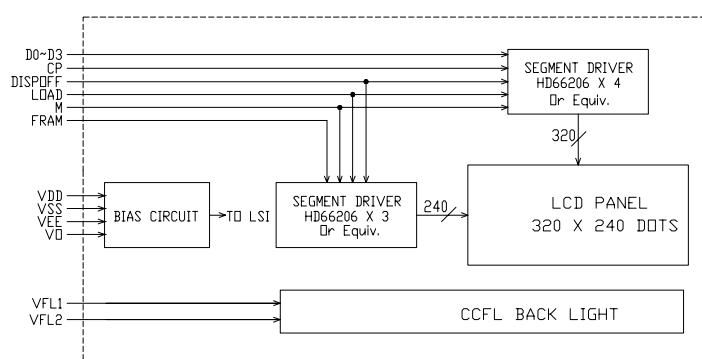


### OUTLINE DIMENSION

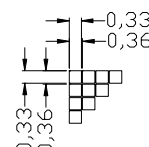


Tolerance: ±0.20mm, unless otherwise specified.

### BLOCK DIAGRAM



### DISPLAY PATTERN



### MECHANICAL SPECIFICATION

Item	Dimensions(W)X(H)	Unit
Overall Size	167.0x109.0	MM
View Area	122.0x92.0	MM
Dot Size	0.33x0.33	MM
Dot Pitch	0.36x0.36	MM

### PIN ASSIGNMENT

CN1		
1-4	D0-D3	Data bit 0-3
5	DISPOFF	Display on/off
6	Frame	Frame signal
7	M	Frame inversion signal
8	LOAD	Latch pulse / row clock
9	CP	Pixel / data clock
10	VDD	Supply voltage for logic
11	VSS	Ground
12	VEE	LCD supply voltage
13	VO	Contrast adjust
14	FGND	Frame ground
CN2		
1	VFL1	Supply voltage for CCFL
2	NC	No connection
3	NC	No connection
4	VFL2	Supply voltage for CCFL

### 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	VEE	25°C	15	30.0	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	---	---	10	16	mA
Operation voltage for LCD	VEE	0°C	22.1	23.3	24.5	V
		25°C	21.2	22.4	23.6	V
		50°C	20.2	21.4	22.6	V
Input voltage "H" level	VIH	---	0.7VDD	---	VDD	V
Input voltage "L" level	VIL	---	0	---	0.3VDD	V
Supply voltage for CCFL	VF	---	---	290	---	Vrms
Supply current for CCFL	IF	VF=290Vrms	---	5m	---	Arms

### REMARKS:

- LCD options: STN, FSTN.
- Back light type: CCFL Back light feature.