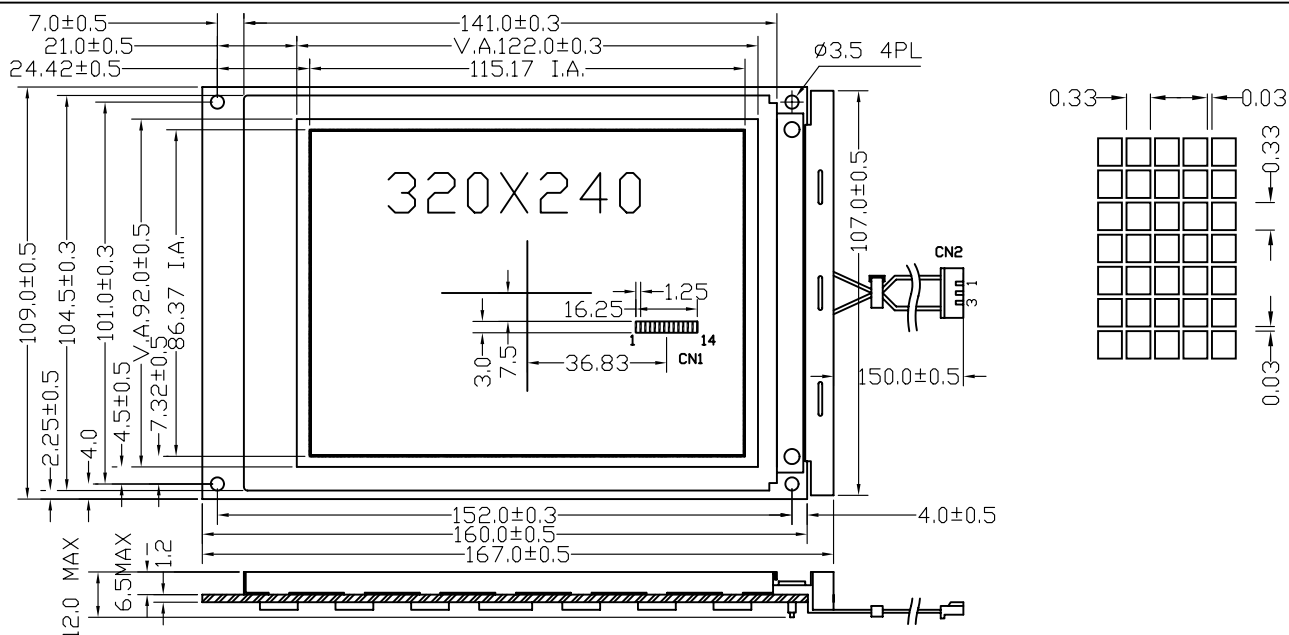


1 EXTERNAL DIMENSIONS AND DISPLAY PATTERN



2 PIN CONNECTION

CN1

Pin No.	Symbol	Function
1	D0	Data Bus
2	D1	
3	D2	
4	D3	
5	DISP OFF	H:Display on, L:Display off
6	FLM	The beginning of each display cycle
7	NC	No Connection
8	LOAD	Data latch pulse
9	CP	Data shift pulse
10	VDD	Supply Logic Voltage
11	VSS	Ground
12	VEE	Supply Voltage for LCD(-25.0 V)
13	VO	Operating voltage for LCD(Variable)
14	FG	Fram ground

CN2

1	2	3
VEL1	NC	VEL2

3 FEATURES

MECHANICAL DATA (Nominal dimensions)

Module size.....160.0W*109.0H*10.0D mm
Effective display area.....122.0W*92.0H mm
Dot size0.33W*0.33H mm
Dot pitch0.36W*0.36H mm

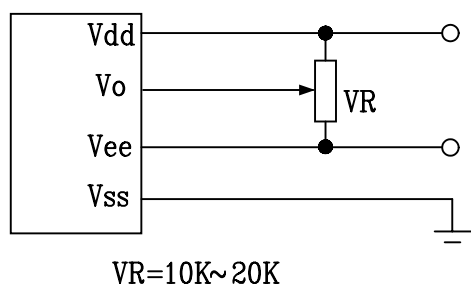
ABSOLUTE MAXIMUM RATINGS

min. max.
Power supply for logic (Vdd-Vss).....-0.3 7.0V
Power supply for lcd drive (Vdd-Vo)..-0.3 30V
Input voltage (Vi).....Vss Vdd
Operating temperature (Ta).....0 50°C
storage temperature (Tstg).....-10 60°C

ELECTRICAL CHARACTERISTICS

min. max.
Ta=25°C, Vdd=5.0±0.5V
Input 'high' voltage (Vih).....0.7Vdd Vdd
Input 'low' voltage (Vil).....0 0.3Vdd
Power supply current (Idd)(Vdd=5.0V)...40mA 70mA
Drive method.....1/240 Duty, 1/17 Bias

4 POWER SUPPLY



VR=10K~20K

5 BLOCK DIAGRAM

