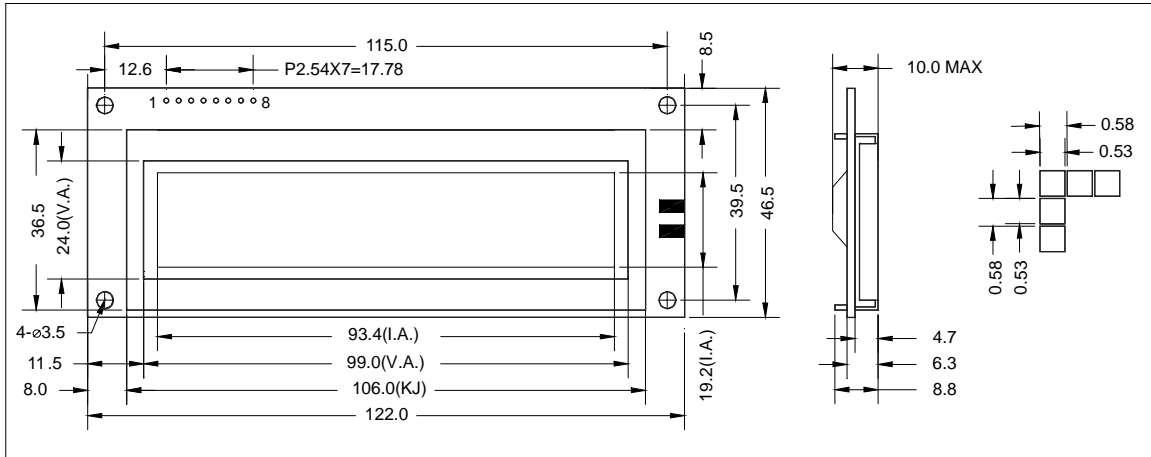


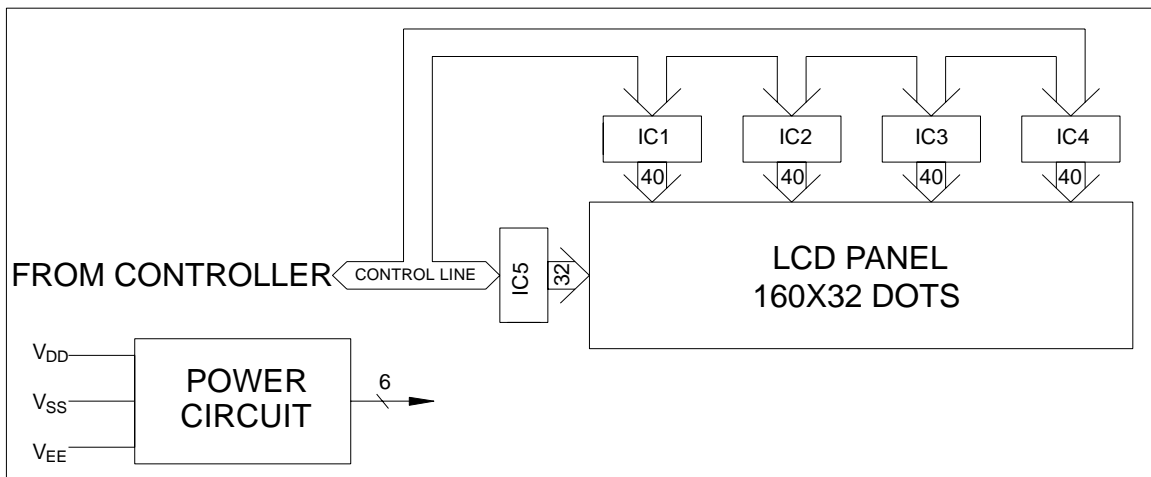
1.0 Features

- * Display Mode: Reflective/Transflective/Transmissive and Positive Type STN
- * Input Data: 8-Bits Parallel Data Input from a MPU
- * Assembly: SMT
- * Backlight: Optional

2.0 External Dimensions



3.0 Block Diagram



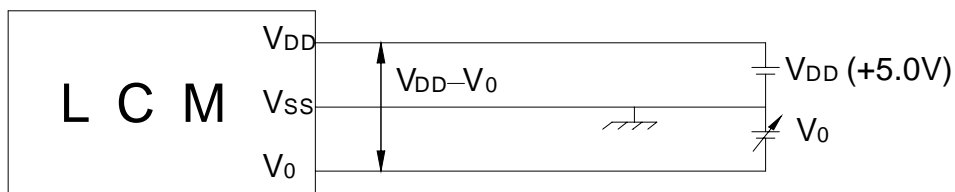
4.0 Maximum Rating

Item	Symbol	Test Condition	Standard Value		Unit
			Min.	Max.	
Supply Voltage for Logic	$V_{DD}-V_{SS}$	$T_a=25\text{ }^\circ\text{C}$	0	6.0	V
Supply Voltage for LCD	$V_{DD}-V_{EE}$		0	6.0	V
Input Voltage	V_i		0	V_{DD}	V
Operating Temperature	T_{opr}	—	0	+50	$^\circ\text{C}$
Storage Temperature	T_{stg}	—	-10	+60	$^\circ\text{C}$

5.0 Electro-Optical Characteristics

Item	Symbol	Conditions	Standard Value			Unit	
			Min.	Typ.	Max.		
Power Supply for Logic	Logic	Vdd	—	4.5	5.0	5.5	V
	LCD Drive	Vdd-Vee		—	—	6.0	
Frame Frequency	f FLM	Vdd=5.0V	65	70	75	Hz	
Current Consumption	Idd	Vdd=5.0V, Vdd-V0=5.0V/R=160Kohm	—	—	2.0	mA	
LCD Driving Voltage(Recommended)	Vdd-V0	Ta=25℃; $\phi, \theta = 0^\circ$	6.0	6.5	7.0	V	
Response Time(Rising)	Tr	Ta=25℃; $\phi, \theta = 0^\circ$	—	250	300	ms	
Response Time(Decay)	Td		—	300	350	ms	
Viewing Angle	$\phi 2-\phi 1$	$K \geq 2$	0	—	45	DEG.	
Contrast Ratio	K	$\phi = 0^\circ, \theta = 0^\circ$	2.0	5.0	—	—	

6.0 Power Supply for LCM



$V_{DD} - V_0$: LCD Driving Voltage

7.0 I/O Connection

Pin No	Symbol	Level	Description
1	FLM	H	Indicates the beginning of each display cycle
2	MB	H/L	Control signal for AC driving
3	CL1	H/L	Control signal for latching data
4	D01	H/L	Data bit
5	CL2	H/L	Control signal for latching data
6	VDD	5.0V	Power supply for logic and LCD
7	GND	0V	Ground
8	V0	—	Supply voltage of LCD drive