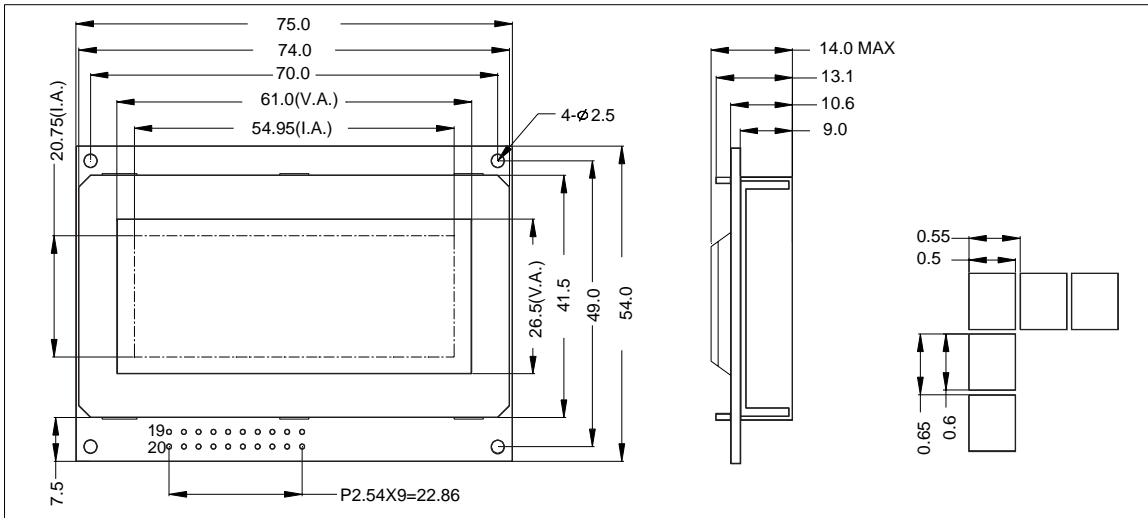


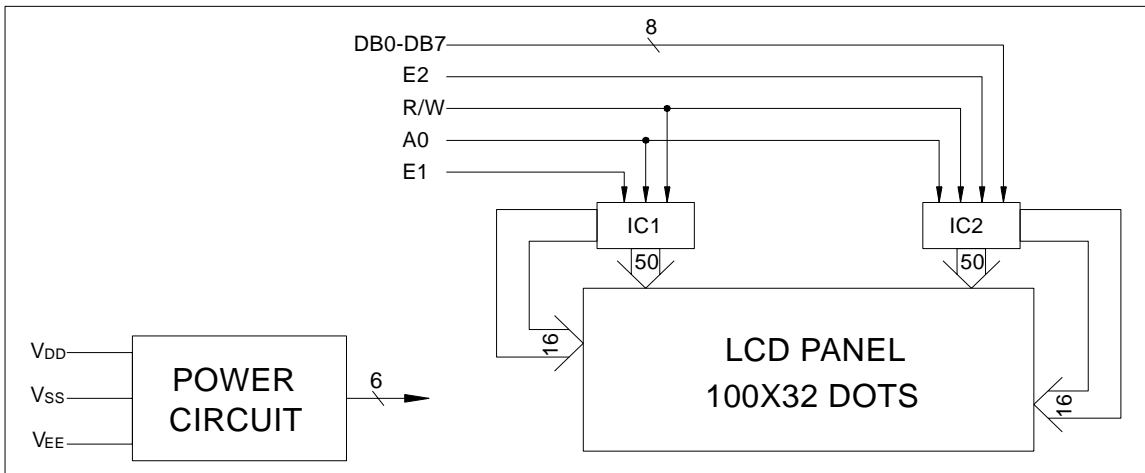
1.0 Features

- \* Display Mode: Reflective/Transflective/Transmissive and Positive Type STN
- \* Input Data: 8-Bits Parallel Data Input from a MPU
- \* Assembly: EDM10032A -- SMT ; DFMG10032-01 -- COB
- \* Backlight: Optional

2.0 External Dimensions



3.0 Block Diagram



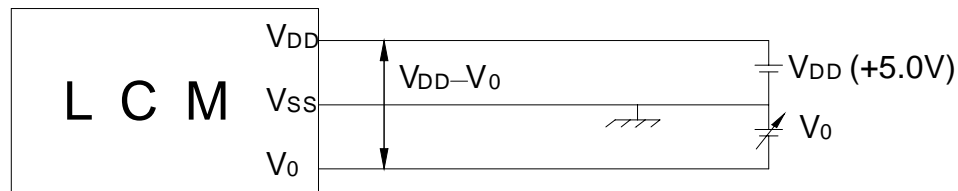
4.0 Maximum Rating

Item	Symbol	Test Condition	Standard Value		Unit
			Min.	Max.	
Supply Voltage for Logic	V <sub>DD</sub> -V <sub>SS</sub>	Ta=25 °C	0	7.0	V
Supply Voltage for LCD	V <sub>DD</sub> -V <sub>EE</sub>		0	10.0	V
Input Voltage	V <sub>I</sub>		0	V <sub>DD</sub>	V
Operating Temperature	T <sub>opr</sub>	—	0	+50	°C
Storage Temperature	T <sub>stg</sub>	—	-10	+60	°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	60	65	70	Hz	
Current Consumption	Idd	Vdd=5.0V, Vdd-V0=5.0 V/R=160Kohm	—	—	2.0	mA	
LCD Driving Voltage(Recommended)	Vdd-V0	Ta=25°C; Ø,θ=0°	—	5.0	—	V	
Response Time(Rising)	Tr	Ta=25°C; Ø,θ=0°	—	200	250	ms	
Response Time(Decay)	Td		—	250	300	ms	
Viewing Angle	Ø2-Ø1	K≥2	-10	—	45	DEG.	
Contrast Ratio	K	Ø=0°, θ=0°	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	Function
1	NC	—	No connection
2	LEDT	—	Power supply of Backlight
3	GND	0V	Ground
4	NC	—	No connection
5	GND	0V	Ground
6	Vcc	5.0V	Power supply for logic and LCD
7	V <sub>0</sub>	—	Operating voltage for LCD
8	A0	H/L	H: Display Data L: Instruction
9	R/W	H/L	H: Read L: Write
10	E1	H,H/L	Chip enable signal 1
11	E2	H,H/L	Chip enable signal 2
12	NC	—	No connection
13	DB0	H/L	Data bit 0
14	DB1	H/L	Data bit 1
15	DB2	H/L	Data bit 2
16	DB3	H/L	Data bit 3
17	DB4	H/L	Data bit 4
18	DB5	H/L	Data bit 5
19	DB6	H/L	Data bit 6
20	DB7	H/L	Data bit 7