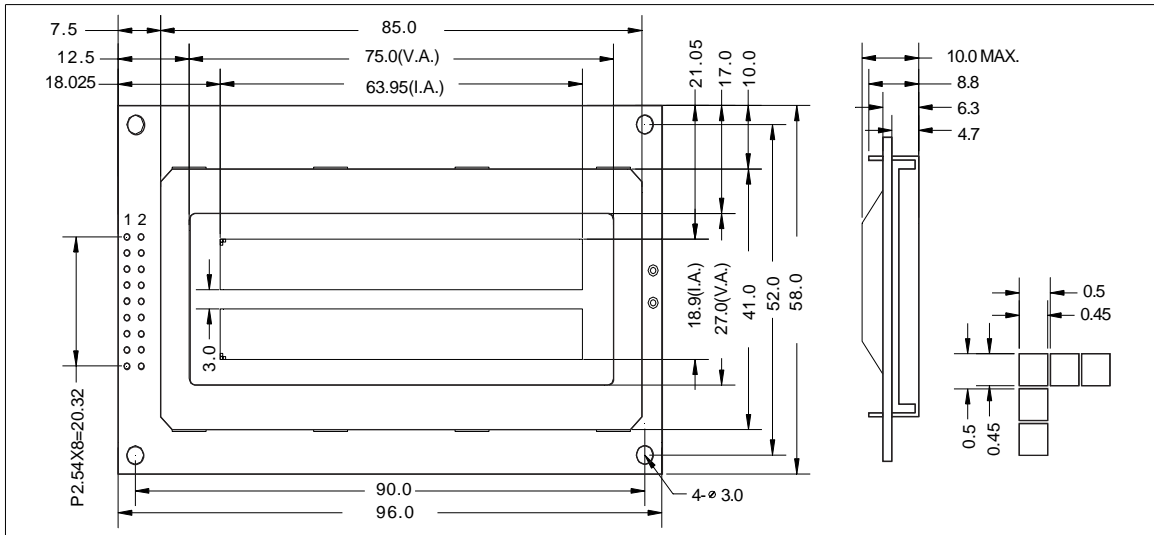


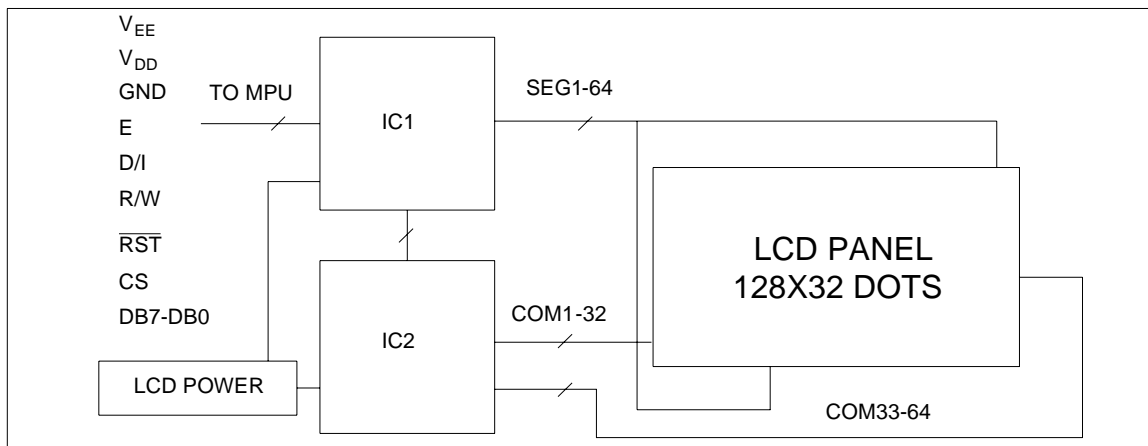
1.0 Features

- * Display Mode: Reflective/Transflective/Transmissive and Positive Type STN
- * Input Data: 8-Bits Parallel Data Input from a MPU
- * Assembly: EDM12832C -- SMT ; DFMG12832-01 -- COB
- * Backlight: Optional

2.0 External Dimensions



3.0 Block Diagram



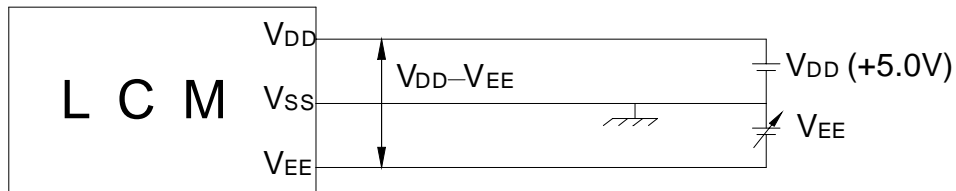
4.0 Maximum Rating

Item	Symbol	Test Condition	Standard Value		Unit
			Min.	Max.	
Supply Voltage for Logic	V _{DD} -V _{SS}	Ta=25 °C	0	7.0	V
Supply Voltage for LCD	V _{DD} -V _{EE}		—	—	V
Input Voltage	V _I		0	V _{DD}	V
Operating Temperature	Topr	—	0	+50	°C
Storage Temperature	Tstg	—	-10	+60	°C

5.0 Electro-Optical Characteristics

Item	Symbol	Conditions	Standard Value			Unit	
			Min.	Typ.	Max.		
Power Supply for Logic	Logic	Vdd	—	4.75	5.0	5.25	V
	LCD Drive	Vdd-Vee		—	—	5.75	
Frame Frequency	f FLM	Vdd=5.0V	65	70	75	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; $\phi, \theta = 0^\circ$	—	15.0	—	V	
Response Time(Rising)	Tr	Ta=25 °C; $\phi, \theta = 0^\circ$	—	200	250	ms	
Response Time(Decay)	Td		—	250	300	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



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

7.0 I/O Connection

Pin No	Symbol	Level	Description
1	V _{EE}	—	Power supply for LCD(Build-in)
2	V _{DD}	5.0V	Power supply for logic and LCD
3	GND	0V	Ground
4	E	H,H/L	Chip enable signal
5	D/I	H/L	H: Data L: Instruction code
6	R/W	H/L	H: Read L: Write
7	/RST	L	Reset signal
8	CS	H	Chip select signal
9	DB7	H/L	Data bit 7
10	DB6	H/L	Data bit 6
11	DB5	H/L	Data bit 5
12	DB4	H/L	Data bit 4
13	DB3	H/L	Data bit 3
14	DB2	H/L	Data bit 2
15	DB1	H/L	Data bit 1
16	DB0	H/L	Data bit 0
17	BL	—	Back light
18	BL	—	Back light