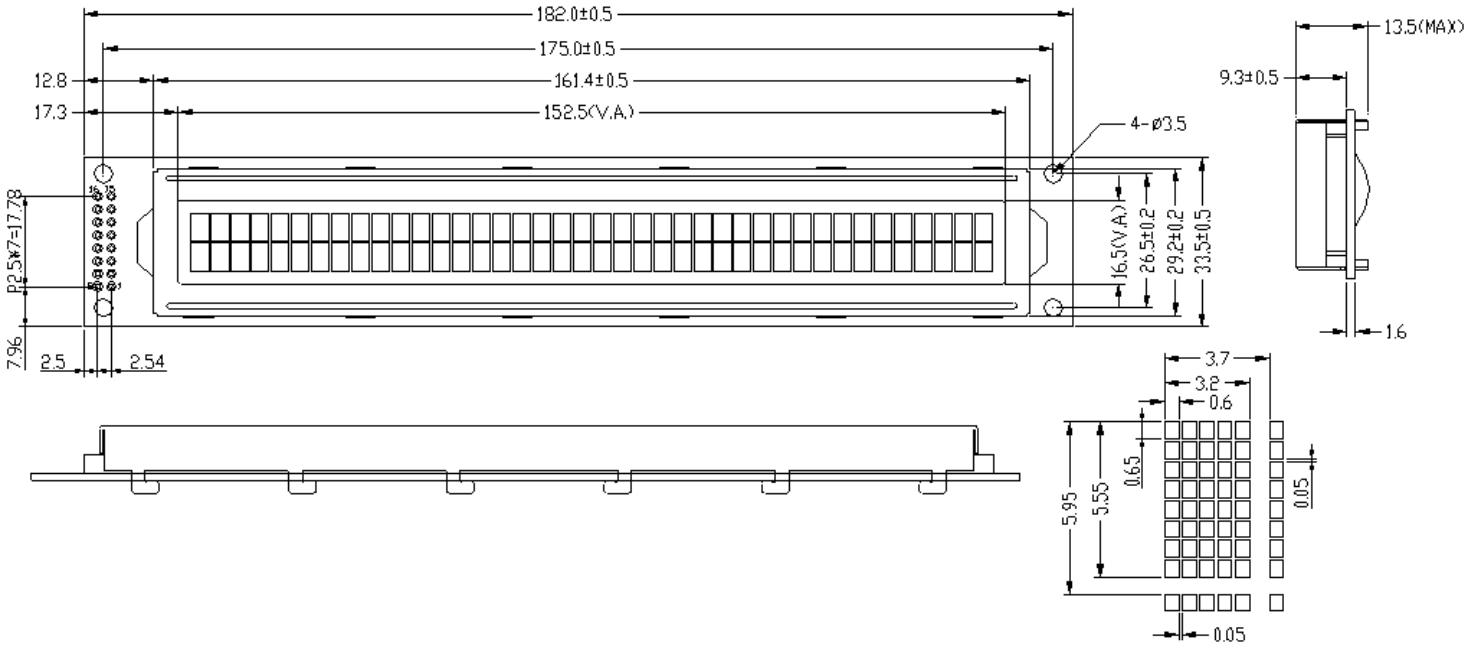
Basic Character LCD Drawing

Part Number: FDS40x2(175x26.5)LBC



Features:

1. 5x8 Dots with cursor
2. Built-in controller (ST7066U or Equivalent)
3. +5V power supply
4. 4-bit or 8-bit MPU interfaces
5. RoHS Compliant

Mechanical Data

ITEM	STANDARD	UNIT
MODULE DIMENSION	182.0 X 33.5	mm
VIEWING AREA	152.5 X 16.5	mm
DOT SIZE	0.60 X 0.65	mm
CHARACTER SIZE	3.20 X 5.55	mm

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Interface Pin Connections

NO	SYMBOL	LEVEL	FUNCTION
1	V_{SS}	Power Supply	Signal Ground for LCM
2	V_{DD}		Power supply for logic for LCM
3	V_O		Contrast Adjust
4	RS	MPU	Register Select signal
5	R/W	MPU	Read/Write Select signal
6	E	MPU	Operation (data read/write) enable signal
7~10	DB_0~DB_3	MPU	Four High Order bi-directional three-state data bus lines. Used for data transfer between the MPU and the LCM. These four are not used during 4-bit operation.
11~14	DB_4~DB_7	MPU	Four High Order bi-directional three-state data bus lines. Used for data transfer between the MPU.
15	LED+	LED BKL power supply	Power supply for Backlight
16	LED-		

Absolute Maximum Rating

ITEM	SYMBOL	MIN	TYP	MAX	UNIT
Power Voltage	V_{DD}-V_{SS}	0	--	7.0	V
Input Voltage	V_{IN}	V_{SS}	--	V_{DD}	
Operating Temperature Range	V_{OP}	-20	--	+70	°C
Storage Temperature Range	V_{ST}	-30	--	+80	

Electrical Characteristics

ITEM	SYM	CONDITION	MIN	TYP	MAX	UNIT
Supply Voltage for LCD	V_{DD}-V_0	Ta =25°C	4.3	4.5	4.7	V
Input Voltage	V_{DD}		4.5	5.0	5.5	
Supply Current	I_{DD}	Ta =25°C, VDD=5.0V	--	2.5	3.0	mA
Input Leakage Current	I_{LKG}		--	--	2.0	uA
"H" Level Input Voltage	V_{IH}		2.2	--	V_{DD}	V
"L" Level Input Voltage	V_{IL}	Twice Initial Value or Less	0	--	0.6	
"H" Level Output Voltage	V_{OH}	LOH= -0.25mA	2.4	--	--	
"L" Level Output Voltage	V_{OL}	LOH= 1.6mA	--	--	0.4	
Backlight supply voltage	V_F		3.8	4.2	4.4	
Backlight supply current	I_{LED}	V_F =5.0V R=6.8OHM	--	128	--	mA

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