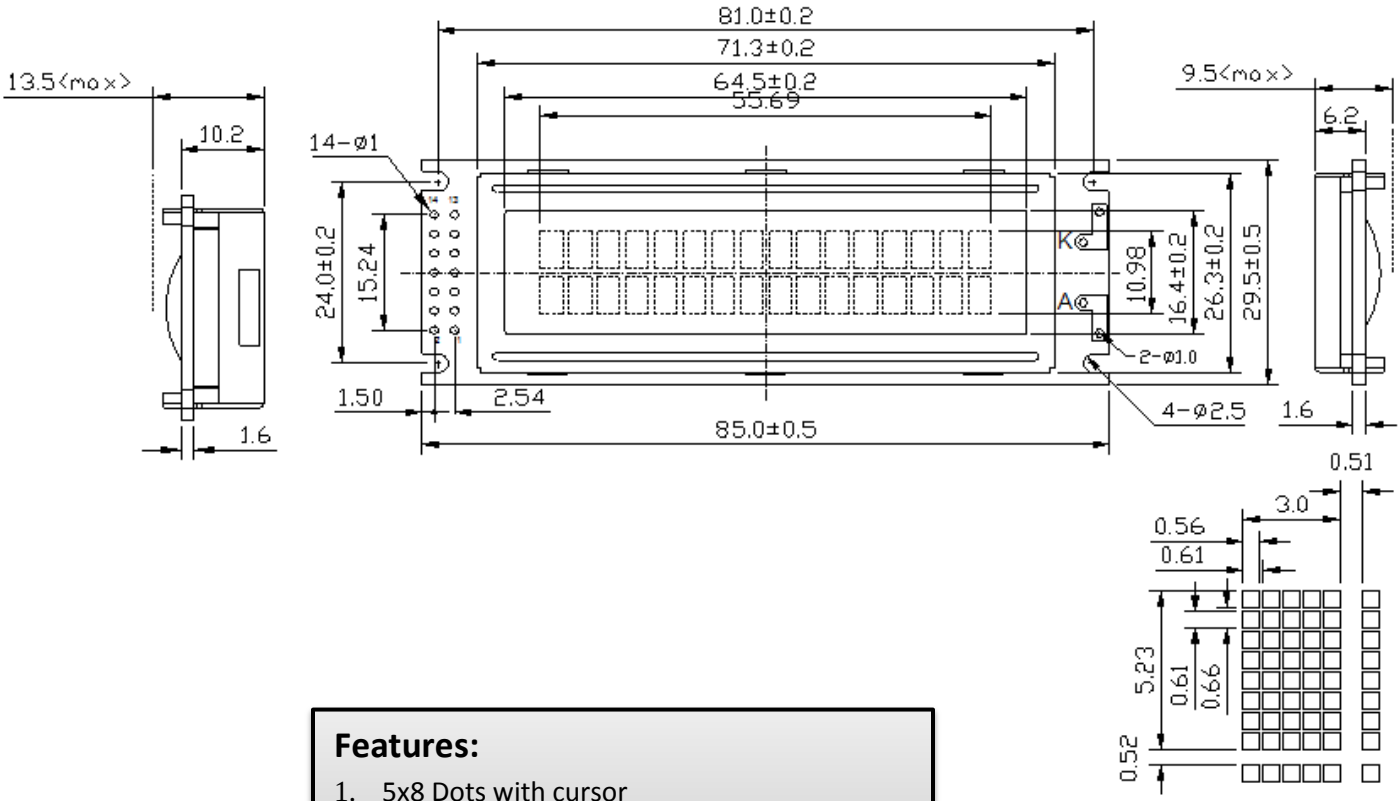
Basic Character LCD Drawing

Part Number: FDS16x2(81x24)LBC



Features:

1. 5x8 Dots with cursor
2. Built-in controller (SPLC780D or Equivalent)
3. +5V power supply
4. 4-bit or 8-bit MPU interfaces
5. ROHS compliant

Mechanical Data

ITEM	STANDARD	UNIT
MODULE DIMENSION	85.0 X 29.5	mm
VIEWING AREA	64.5 X 16.4	mm
DOT SIZE	0.56 X 0.61	mm
CHARACTER SIZE	3.00 X 5.23	mm

Interface Pin Connections

NO	SYMBOL	LEVEL	FUNCTION
1	V_{DD}	Power Supply	Power supply for logic for LCM
2	V_{SS}		Signal Ground for LCM
3	V_O		Contrast Adjustment
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 Low 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.

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_O	Ta =25°C	--	4.5	--	V
Input Voltage	V_{DD}		4.7	5.0	5.5	V
Supply Current	I_{DD}	Ta =25°C, V_{DD}=5.0V	--	1.5	2.5	mA
Input Leakage Current	I_{LKG}		--	--	1.0	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		--	4.2	--	
Backlight supply current	I_{LED}	V_F=4.2V	--	120	--	mA