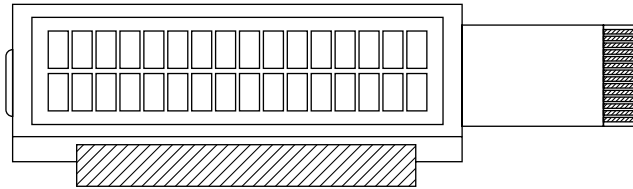# 16 x 2 Character LCD

FEATURES

- Type: Character
- Display format: 16 x 2 characters
- Built-in controller: KS 0066 (or equivalent)
- Duty cycle: 1/16
- 5 x 8 dots includes cursor
- + 5 V power supply
- Compliant to RoHS directive 2002/95/EC

RoHS COMPLIANT

Pb-free

MECHANICAL DATA

ITEM	STANDARD VALUE	UNIT
Module Dimension	89.0 x 19.6	
Viewing Area	61.0 x 15.9	
Dot Size	0.55 x 0.55	mm
Dot Pitch	0.60 x 0.70	
Mounting Hole	N/a	
Character Size	2.95 x 5.55	

ABSOLUTE MAXIMUM RATINGS

ITEM	SYMBOL	STANDARD VALUE			UNIT
		MIN.	TYP.	MAX.	
Power Supply	V_{DD} to V_{SS}	- 0.3	-	7.0	V
Input Voltage	V_I	- 0.3	-	V_{DD}	

Note

- $V_{SS} = 0$ V, $V_{DD} = 5.0$ V

ELECTRICAL CHARACTERISTICS

ITEM	SYMBOL	CONDITION	STANDARD VALUE			UNIT
			MIN.	TYP.	MAX.	
Input Voltage	V_{DD}	-	4.7	5.0	5.3	V
Supply Current	I_{DD}	$V_{DD} = + 5$ V	-	1.0	1.2	mA
Recommended LC Driving Voltage for Normal Temperature Version Module	V_{DD} to V_0	- 20 °C	5.0	5.1	5.7	V
		0 °C	4.6	4.8	5.2	
		25 °C	4.1	4.5	4.7	
		50 °C	3.9	4.2	4.5	
		70 °C	3.7	3.9	4.3	
LED Forward Voltage	V_F	25 °C	-	-	-	V
LED Forward Current	I_F	25 °C	-	-	-	mA
EL Power Supply Current	I_{EL}	$V_{EL} = 110$ V_{AC}, 400 Hz	-	-	-	mA

OPTIONS

PROCESS COLOR						BACKLIGHT			
TN	STN Gray	STN Yellow	STN Blue	FSTN B&W	STN Color	None	LED	EL	CCFL
x	x	x	x			x	x	x	

For detailed information, please see the "Product Numbering System" document.

DISPLAY CHARACTER ADDRESS CODE

Display Position

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
DD RAM Address	00	01	02	03	04	05	06	07	08	09	0A	0B	0C	0D	0E	0F
DD RAM Address	40	41	42	43	44	45	46	47	48	49	4A	4B	4C	4D	4E	4F

INTERFACE PIN FUNCTION

PIN NO.	SYMBOL	FUNCTION
1	V_{DD}	Supply voltage for logic
2	V_0	Contrast adjustment
3	RS	H: Data/L: Instruction
4	$R/\overline{W}$	H: Read data/L: Write data
5	E	Enable signal
6	DB0	Data bus line
7	DB1	Data bus line
8	DB2	Data bus line
9	DB3	Data bus line
10	DB4	Data bus line
11	DB5	Data bus line
12	DB6	Data bus line
13	DB7	Data bus line
14	V_{SS}	Ground

DIMENSIONS in millimeters
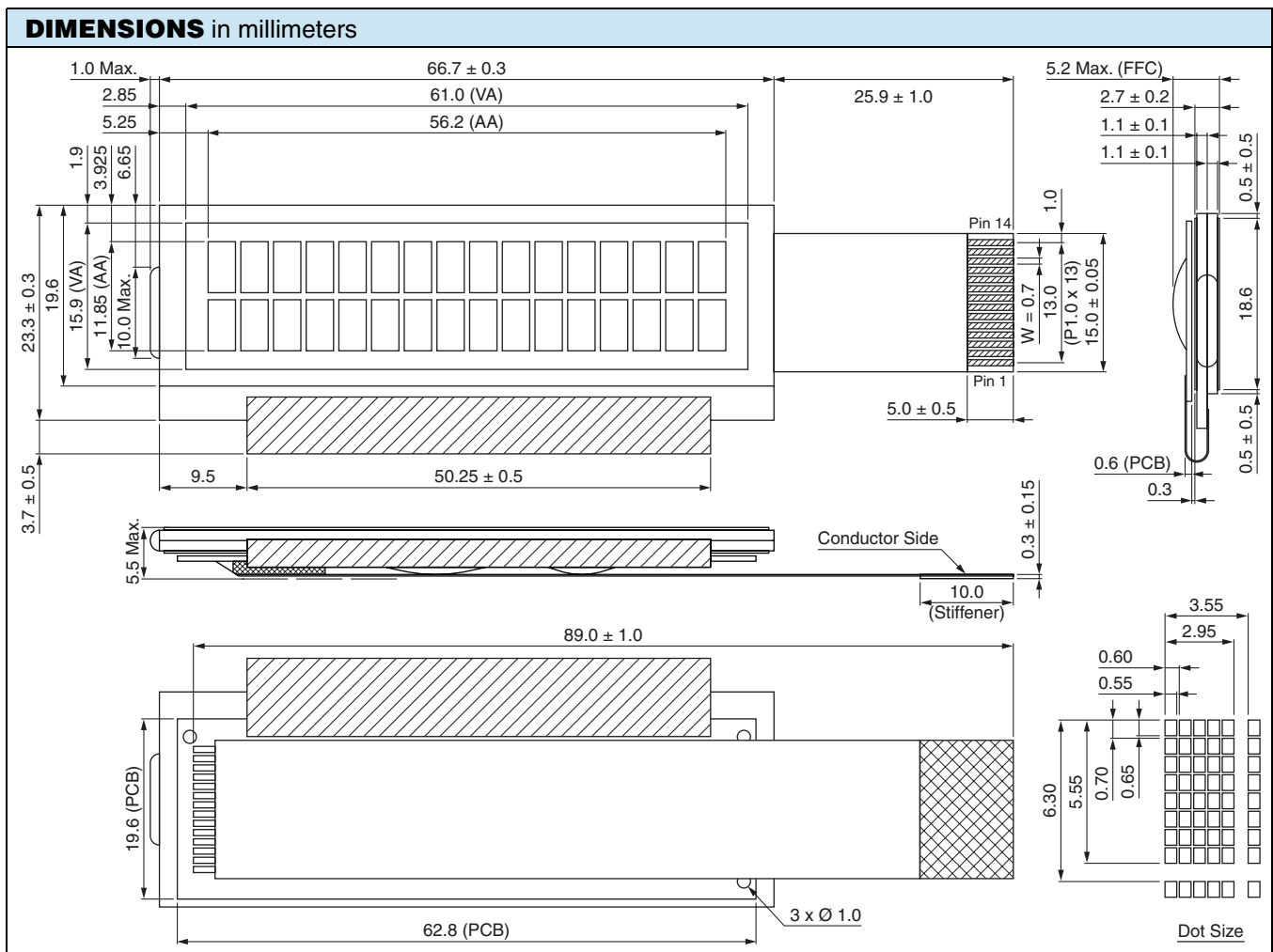
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