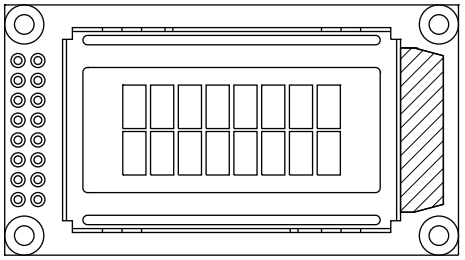
8 x 2 Character LCD



FEATURES

- Type: Character
- Display format: 8 x 2 characters
- Built-in controller: ST7066 or equivalent
- Duty cycle: 1/16
- 5 x 8 dots includes cursor
- + 5 V power supply
- LED can be driven by pin 1, pin 2, or A and K
- Material categorization: For definitions of compliance please see www.vishay.com/doc?99912

Pb-free

RoHS COMPLIANT

MECHANICAL DATA

ITEM	STANDARD VALUE	UNIT
Module Dimension	58.0 x 32.0	mm
Viewing Area	38.0 x 16.0	
Dot Size	0.56 x 0.66	
Dot Pitch	0.60 x 0.70	
Mounting Hole	53.0 x 27.0	
Character Size	2.96 x 5.56	

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}	V_{DD} = + 5 V	4.7	5.0	5.3	V
Supply Current	I_{DD}	V_{DD} = + 5 V	-	1.5	1.7	mA
Recommended LC Driving Voltage for Normal Temperature Version Module	V_{DD} to V_0	- 20 °C	4.9	5.2	5.5	V
		0 °C	4.5	4.8	5.1	
		25 °C	4.1	4.4	4.7	
		50 °C	3.8	4.2	4.4	
		70 °C	3.5	4.0	4.1	
LED Forward Voltage	V_F	25 °C	-	4.2	4.6	V
LED Forward Current	I_F	25 °C	-	70	140	mA
EL Power Supply Current	I_{EL}	V_{EL} = 110 V_{AC}, 400 Hz	-	-	5.0	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	x	-

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

DISPLAY CHARACTER ADDRESS CODE

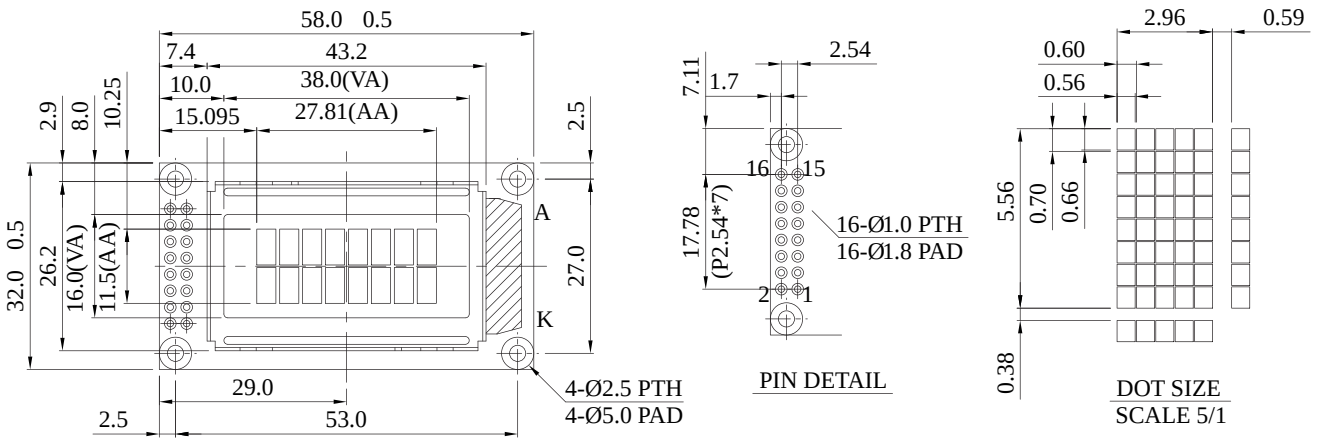
Display Position

	1	2	3	4	5	6	7	8
DD RAM Address	00	01	02	03	04	05	06	07
DD RAM Address	40	41	42	43	44	45	46	47

INTERFACE PIN FUNCTIONS

PIN NO.	SYMBOL	FUNCTION
1	V_{SS}	Ground
2	V_{DD}	Supply voltage for logic + 5 V
3	V_0	Operating voltage for LCD
4	RS	H: Data, L: Instruction code
5	$R\overline{W}$	H: Read (MPU → module), L: Write (MPU → module)
6	E	Chip enable signal
7	DB0	Data bus line
8	DB1	Data bus line
9	DB2	Data bus line
10	DB3	Data bus line
11	DB4	Data bus line
12	DB5	Data bus line
13	DB6	Data bus line
14	DB7	Data bus line
15	A	LED +
16	K	LED -

DIMENSIONS in millimeters



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