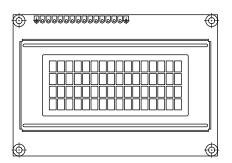
ROHS



16 x 4 Character LCD



MECHANICAL DATA								
ITEM	STANDARD VALUE	UNIT						
Module Dimension	87.0 x 60.0							
Viewing Area	62.0 x 26.0							
Dot Size	0.55 x 0.55	mm						
Dot Pitch	0.60 x 0.60	mm						
Mounting Hole	82.0 x 55.0							
Character Size	2.95 x 4.75							

FEATURES

• Type: Character

• Display format: 16 x 4 characters

• Built-in controller: ST 7066 (or equivalent)

• Duty cycle: 1/16

• 5 x 8 dots includes cursor

• + 5 V power supply (also available for + 3 V)

• LED can be driven by pin 1, pin 2, pin 15, pin 16 or A and K

• N.V. optional for 3 V power supply

 Material categorization: For definitions of compliance please see www.vishay.com/doc?99912

ABSOLUTE MAXIMUM RATINGS									
ITEM	SYMBOL	STAN	UNIT						
	STIVIDUL	MIN.	TYP.	MAX.	UNII				
Power Supply	V _{DD} to V _{SS}	- 0.3	-	7.0	V				
Input Voltage	VI	- 0.3	-	V_{DD}	\ \				

Note

• $V_{SS} = 0 \text{ V}, V_{DD} = 5.0 \text{ V}$

ELECTRICAL CHARACTERISTICS									
ITEM	SYMBOL	CONDITION	ST	LINUT					
I I E IVI	STWIBUL	CONDITION	MIN.	TYP.	MAX.	UNIT			
Input Voltage	V	$V_{DD} = + 5 V$	4.7	5.0	5.3	V			
Input Voltage	V_{DD}	$V_{DD} = + 3 V$	2.7	3.0	5.3	V			
Supply Current	I _{DD}	V _{DD} = + 5 V	-	1.0	1.2	mA			
		- 20 °C	5.0	5.1	5.7				
Recommended LC Driving	V _{DD} to V ₀	0 °C	4.6	4.8	5.2				
Voltage for Normal Temperature		25 °C	4.1	4.5	4.7	V			
Version Module		50 °C	3.9	4.2	4.5				
		70 °C	3.7	3.9	4.3	7			
LED Forward Voltage	V _F	25 °C	-	4.2	4.6	V			
LED Forward Current	I _F	25 °C	-	220	440	mA			
EL Power Supply Current	I _{EL}	V _{EL} = 110 V _{AC} , 400 Hz	-	-	5.0	mA			

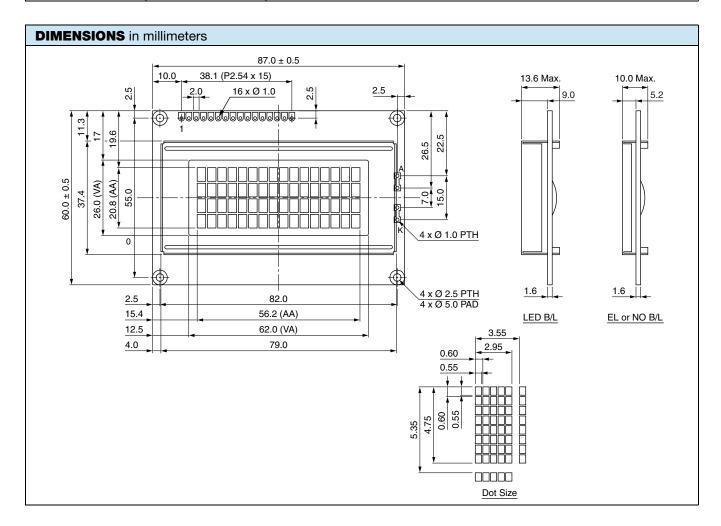
OPTION	OPTIONS									
		PROCES	BACKLIGHT							
TN	STN Gray	STN Yellow	STN Blue	FSTN B&W	STN Color	None	LED	EL	CCFL	
х	х	х	х	х		х	х	х		

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
DD RAM Address	10	11	12	13	14	15	16	17	18	19	1A	1B	1C	1D	1E	1F
DD RAM Address	50	51	52	53	54	55	56	57	58	59	5A	5B	5C	5D	5E	5F



INTERFACE PIN FUNCTION							
PIN NO.	SYMBOL	FUNCTION					
1	V _{SS}	Ground					
2	V _{DD}	Power supply (+ 3 V or + 5 V)					
3	V ₀	Contrast adjustment					
4	RS	H/L register select signal					
5	R/W	H/L read/write signal					
6	E	$H \rightarrow L$ enable signal					
7	DB0	H/L data bus line					
8	DB1	H/L data bus line					
9	DB2	H/L data bus line					
10	DB3	H/L data bus line					
11	DB4	H/L data bus line					
12	DB5	H/L data bus line					
13	DB6	H/L data bus line					
14	DB7	H/L data bus line					
15	A/V _{EE}	+ 4.2 V for LED (RA = 0 Ω)/negative voltage output					
16	K	Power supply for B/L (0 V)					





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