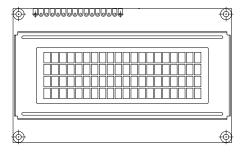




20 x 4 Dots Character LCD



MECHANICAL DATA							
ITEM	STANDARD VALUE	UNIT					
Module Dimension	98.0 x 60.0	mm					
Viewing Area	77.0 x 25.2	mm					
Dot Size	0.55 x 0.55	mm					
Character Size	2.95 x 4.75	mm					

FEATURES

- 5 x 8 dots with cursor
- Built-in controller (KS 0066 or Equivalent)
- + 5V power supply (Also available for + 3V)
- 1/16 duty cycle
- B/L to be driven by pin 1, pin 2 or pin 15, pin 16 or A.K (LED)
- N.V. optional for + 3V power supply

ABSOLUTE MAXIMUM RATING									
ITEM	SYMBOL	STANDARD VALUE UNIT							
		MIN.	TYP.	MAX.					
Power Supply	VDD-VSS	- 0.3	_	7.0	V				
Input Voltage	VI	- 0.3	_	VDD	٧				

NOTE: VSS = 0 Volt, VDD = 5.0 Volt

ELECTRICAL SPECIFICATIONS									
ITEM	SYMBOL	CONDITION	ST	UNIT					
			MIN.	TYP.	MAX.				
Input Voltage	VDD	VDD = + 5V	4.7	5.0	5.3	V			
		VDD = + 3V	2.7	3.0	5.3	V			
Supply Current	IDD	VDD = + 5V	_	1.6	1.2	mA			
		- 20 °C	5.0	5.1	5.7				
Recommended LC Driving	VDD - V0	0°C	4.6	4.8	5.2				
Voltage for Normal Temp.		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				
LED Forward Voltage	VF	25°C	_	4.2	4.6	V			
LED Forward Current	IF	25°C	_	280	560	mA			
EL Power Supply Current	IEL	Vel = 110VAC:400Hz	_	-	5.0	mA			

DISPLAY CHARACTER ADDRESS CODE:																
Display Position	1	2	3	4	5	6	7	8	9	10	11	12	13	_	_	20
DD RAM Address	00	01														13
DD RAM Address	40	41														53
DD DAM Addross [1	1			1									
DD RAM Address	14	15														27
DD RAM Address	54	55														67

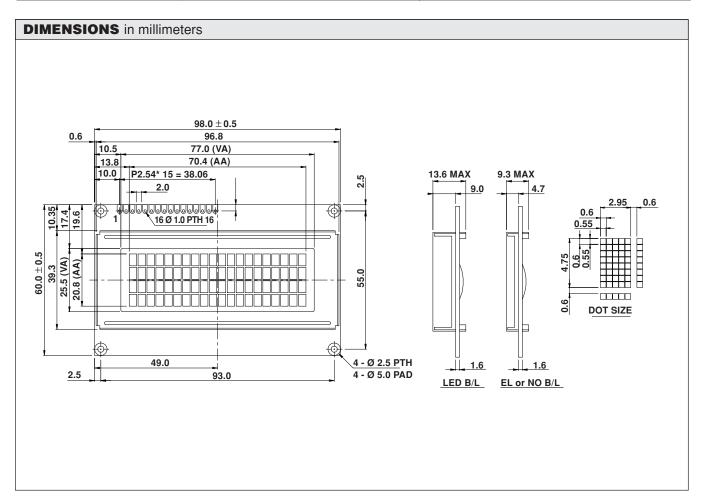
LCD-020M004A

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20 x 4 Dots Character LCD



PIN NUMBER	SYMBOL	FUNCTION						
1	Vss	GND						
2	Vdd	+ 3V or + 5V						
3	Vo	Contrast Adjustment						
4	RS	H/L Register Select Signal						
5	R/W	H/L Read/Write Signal						
6	E	H →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/Vee	4.2V for LED/Negative Voltage Output						
16	К	Power Szupply for B/L (0V)						





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