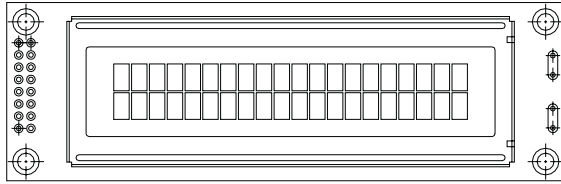


## 20 x 2 Character LCD



### FEATURES

- 5 x 8 dots includes 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 and K (LED)
- N.V. optional for + 3V power supply

MECHANICAL DATA		
ITEM	STANDARD VALUE	UNIT
Module Dimension	116.0 x 37.0	mm
Viewing Area	85.0 x 18.6	mm
Dot Size	0.6 x 0.65	mm
Character Size	3.2 x 5.55	mm

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	V

**NOTE:** VSS = 0 Volt, VDD = 5.0 Volt

ELECTRICAL SPECIFICATIONS						
ITEM	SYMBOL	CONDITION	STANDARD VALUE			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	-	1.0	1.2	mA
Recommended LC Driving Voltage for Normal Temp. Version Module	VDD - V0	- 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	VF	25°C	-	4.2	4.6	V
LED Forward Current	IF	25°C	-	210	420	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	

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 Potput
16	K	Power Supply for B/L (OV)

**DIMENSIONS** in millimeters

