



### Feature

1. 5x8 dots includes cursor
2. Built-in controller (KS0066 or Equivalent)
3. +5V power supply (Also available for +3V)
4. 1/16 duty cycle
5. LED can be driven by pin 17, pin 18.
6. N.V. optional for +3V power supply

### Pin Assignment

Pin	Symbol	Function
1	NC	No Connection
2	NC	No Connection
3	Vss	GND
4	Vdd	+3V or +5V
5	Vo	Contrast Adjustment
6	RS	H/L Register select signal
7	R/W	Data Read/write
8	E	H→L Enable signal
9	DB0	Data bit 0
10	DB1	Data bit 1
11	DB2	Data bit 2
12	DB3	Data bit 3
13	DB4	Data bit 4
14	DB5	Data bit 5
15	DB6	Data bit 6
16	DB7	Data bit 7
17	VLED+	Power supply for LED+
18	VLED-	Power supply for LED-
19	Vss	Negative voltage output
20	NC	No Connection

### Mechanical Data

Item	Standard Value	Unit
Module Dimension	89.0 x 21.5	mm
Viewing Area	75.0 x 15.0	mm
Mounting hole	86.0 x 15.5	mm
Character Size	2.95 x 5.15	mm

### Absolute Maximum Rating

Item	Symbol	Standard Value			Unit
		min.	typ.	max.	
Power Supply	VDD-VSS	-0.3	--	6.7	V
Input Voltage	VI	-0.3	--	VDD	V

Note: VSS=0 Volt, VDD=5.0 Volt.

### Electrical Characteristics

Item	Symbol	Condition	Standard Value			Unit
			min.	typ.	max.	
Input Voltage	VDD	VDD=+5V	4.75	--	5.3	V
Supply Current	IDD	VDD=+5V	--	1.2	--	mA
Recommended LC Driving Voltage for Normal Temp. Version module	VDD-V0	-20°C	--	--	5.2	V
		0°C	--	--	4.5	
		25°C	--	4.2	--	
		50°C	3.8	--	--	
		70°C	3.5	--	--	

### Display Character Address Code

Display position	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
DD RAM Address	00	01														0F				13
DD RAM Address	40	41														4F				53