



### PIN CONNECTIONS

Pin	Symbol	Level	Function
1	V <sub>SS</sub>	0V	GND
2	V <sub>DD</sub>	+3.3V	Power supply for logic
3	/RES	L	Reset signal ,active "L"
4	P/S	H/L	H: Parallel mode L: serial mode
5	/CS1	L	Chip selection
6	CS2	H	
7	C86	H/L	H: 6800 interface mode L: 8080 interface mode
8	A0	H/L	H: data; L: Instruction
9	R/W	H/L	68:H: read; L: write 80: write
10	E	H/L	68:Chip enable signal 80: read
11   18	DB0   DB7	H/L	Data bus line Serial mode: D7—SI D6—SCL.
19	LEDA	+3.3V	Power supply for LED backlight
20	LEDK	0V	

### NOTES:

- 5V/3.3V power supply optional
- Built-in controller
- Low power supply

### MECHANICAL DATA

Item	Nominal Dimensions	Unit
Module Size ( W x H x T )	75.0X54.7X12.5	mm
Viewing Area ( W x H )	60.0X32.6	mm
Dot Pitch ( W x H )	0.43X0.43	mm
Dot Size ( W x H )	0.40X0.40	mm

### ABSOLUTE MAXIMUM RATINGS

Item	Symbol	Min.	Max.	Unit
Supply Voltage (Logic)	V <sub>DD</sub> -V <sub>SS</sub>	-0.3	7.0	V
Supply Voltage (LCD)	V <sub>0</sub> -V <sub>SS</sub>	-0.3	15.0	V
Input Voltage	V <sub>I</sub>	-0.3	V <sub>DD</sub> +0.3	V
Operating Temp.	T <sub>OPR</sub>	-20	70	
Storage Temp.	T <sub>STG</sub>	-30	80	

### ELECTRICAL CHARACTERISTICS ( V<sub>DD</sub>=3.0V, Ta=25 )

Item	Symbol	Min.	Typ.	Max.	Unit
Input High Voltage	V <sub>IH</sub>	0.7V <sub>DD</sub>	-	V <sub>DD</sub>	V
Input Low Voltage	V <sub>IL</sub>	V <sub>SS</sub>	-	0.3V <sub>DD</sub>	V
Output High Voltage	V <sub>OH</sub>	0.7V <sub>DD</sub>	-	V <sub>DD</sub>	V
Output Low Voltage	V <sub>OL</sub>	V <sub>SS</sub>	-	0.3V <sub>DD</sub>	V
Supply Current	I <sub>DD</sub>	-	1.2	-	mA
LCDDriving Voltage	V <sub>0</sub> - V <sub>SS</sub>	4.5	-	11.5	V

### LED BACKLIGHT SPECIFICATIONS ( Ta=25 )

Item	Forward Voltage	Forward Current
YELLOW-GREEN	2.1V	120mA
White	3.1V	45mA