



Feature

1. Built-in controller SANYO-(LC7981)
2. 1/64 duty cycle
3. N.V. optional
4. +5V power supply

Pin Assignment

Pin	Symbol	Function
1	FGND	Frame ground
2	VSS	Power Supply (GND)
3	Vdd	Power Supply (+5V)
4	Vo	Contrast Adjustment
5	R/W	Date read/write
6	E	Enable signal
7	\overline{CS}	Chip select
8	RS	Data Instruction select
9	NC	No connection
10	\overline{RST}	Reset signal
11	DB0	Data bus line
12	DB1	Data bus line
13	DB2	Data bus line
14	DB3	Data bus line
15	DB4	Data bus line
16	DB5	Data bus line
17	DB6	Data bus line
18	DB7	Data bus line
19	NC	No Connection
20	NC/Vee	NC/Negative Voltage output

Mechanical Data

Item	Standard Value	Unit
Module Dimension	85.0 x 100.0	mm
Viewing Area	62.0 x 62.0	mm
Dot Size	0.34 x 0.34	mm
Dot Pitch	0.38 x 0.38	mm
Mounting hole	75.0 x 94.0	mm

Absolute Maximum Rating

Item	Symbol	Standard Value			Unit
		min.	typ.	max.	
Power Supply	VDD-VSS	4.75	5.0	5.25	V
Input Voltage	VI	-0.3	--	VDD	V

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

Electronical Characteristics

Item	Symbol	Condition	Standard Value			Unit
			min.	typ.	max.	
Input Voltage	VDD	L level	0.7V _{DD}	--	V _{DD}	V
	VIO	H level	0	--	0.3V _{DD}	V
Supply Current	IDD	VDD=+5V	--	7.3	8.4	mA
Recommended LC Driving Voltage for Normal Temp. Version module	VDD-V0	-20°C	16.5	18.0	19.5	V
		0°C	16	17.5	19	
		25°C	15.5	17.0	18.5	
		50°C	14.5	16.0	17.5	
		70°C	14.3	15.8	17.3	
LED Forward Voltage	V _F	25°C	--	4.2	4.6	V
LED Forward Current	IF	25°C	--	500	1000	mA
EL Power Supply Current	IEL	Vel=110VAC;400Hz	--	--	5.0	mA