



Feature

1. Built-in controller SANYO(LC7981)
2. 1/128 duty cycle
3. +5V power supply

Pin Assignment

Pin	Symbol	Function
1	DB0	Data bus line
2	DB1	Data bus line
3	DB2	Data bus line
4	DB3	Data bus line
5	DB4	Data bus line
6	DB5	Data bus line
7	DB6	Data bus line
8	DB7	Data bus line
9	RS	Data/Instruction select
10	R/W	Data read/write
11	E	Enable signal
12	\overline{CS}	Chip select
13	\overline{RES}	Reset signal
14	Vo	Contrast Adjustment
15	Vdd	Power Supply (+5V)
16	VSS	Power Supply (GND)
17	Vee	Negative voltage output
18	dispooff	No connection
19	LED(+)	Power supply for LED B/L(+4.2V)
20	LED(+)	Power supply for LED B/L(0V)

Mechanical Data

Item	Standard Value	Unit
Module Dimension	72.5 X 69.9	mm
Viewing Area	50.0 X 49.0	mm
Dot Size	0.32 x 0.32	mm
Dot Pitch	0.35 x 0.35	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	---	1.5	---	mA
Recommended LC Driving Voltage for Normal Temp. Version module	VDD-V0	-20°C	---	18.0	---	V
		0°C	---	17.5	---	
		25°C	---	17.0	---	
		50°C	---	16.0	---	
		70°C	---	15.5	---	
LED Forward Voltage	V _F	25°C	---	4.2	4.6	V
LED Forward Current	IF	25°C	---	500	---	mA
El. Power Supply Current	IEL	Vel=110VAC;400Hz	---	---	5.0	mA