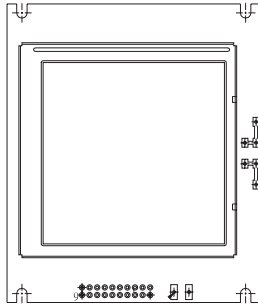


## 160 x 160 Dots Graphic LCD



### FEATURES

- Built-in controller (LC7981)
- 1/160 duty cycle
- N.V. optional
- + 5V power supply

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

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

ELECTRICAL SPECIFICATIONS						
ITEM	SYMBOL	CONDITION	STANDARD VALUE			UNIT
			MIN.	TYP.	MAX.	
Input Voltage	VDD	L level	$0.7V_{DD}$	-	$V_{DD}$	V
	VIO	H level	-	-	$0.3V_{DD}$	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
		25°C	15.5	17.0	18.5	
		60°C	14.5	16.0	17.5	
LED Forward Voltage	VF	25°C	-	4.2	4.6	V
LED Forward Current	IF	25°C	-	500	1000	mA
EL	IEL	Vel = 110VAC; 400Hz	-	-	5.0	mA

PIN NUMBER	SYMBOL	FUNCTION
1	FGND	Frame Ground
2	Vss	Power Supply (GND)
3	Vdd	Power Supply (+ 5V)
4	Vo	Contrast Adjustment
5	R/W	Data Read/Write
6	E	Enable Signal
7	CS	Chip Select
8	RS	Data Instruction Select
9	NC	No Connection
10	RST	Reset Signal
11	DB0	H/L Data Bus Line
12	DB1	H/L Data Bus Line
13	DB2	H/L Data Bus Line
14	DB3	H/L Data Bus Line
15	DB4	H/L Data Bus Line
16	DB5	H/L Data Bus Line
17	DB6	H/L Data Bus Line
18	DB7	H/L Data Bus Line
19	NC	No Connection
20	NC/Vee	NC/Negative Voltage Output

**DIMENSIONS** in millimeters

