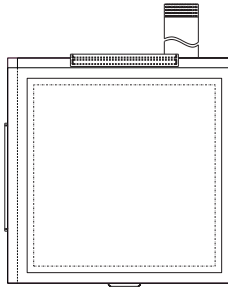


## 160 x 160 Dots Graphic LCD



### FEATURES

- 160 x 160 dots FSTN
- 4-Bit data bus
- + 5V power supply
- 1/160 duty cycle

MECHANICAL DATA		
ITEM	STANDARD VALUE	UNIT
Module Dimension	69.0 x 69.5	mm
Viewing Area	60.0 x 60.0	mm
Dot Size	0.33 x 0.33	mm
Character Size	0.35 x 0.35	mm

ABSOLUTE MAXIMUM RATING					
ITEM	SYMBOL	STANDARD VALUE			UNIT
		MIN.	TYP.	MAX.	
Power Supply	VDD-VSS	–	5.0	6.5	V
Input Voltage	VI	0.8V <sub>DD</sub>	–	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	0.8V <sub>DD</sub>	V <sub>DD</sub>	–	V
	VIO	H level	V <sub>SS</sub>	0.2V <sub>DD</sub>	–	V
Supply Current	IDD	VDD = 5V	–	–	–	mA
Recommended LC Driving Voltage for Normal Temp. Version Module	VDD - V0	0°C	18.5	20.0	21.5	V
		25°C	17.5	19.0	20.5	
		50°C	16.5	18.0	19.5	
EL	VF	25°C	–	–	–	V
EL	IF	25°C	–	–	–	mA
Power Consumption	–	VDD = 5V VSS = 19.0V	–	0.19	–	mA

PIN NUMBER	SYMBOL	FUNCTION
1	Velg/NC	Power Supply for EL (GND, 0V/NC)
2	Vel/NC	Power Supply for EL (+)/NC
3	NC	No Connection
4	FLM	Scan Start-Up Signal
5	CL2 (SCP)	Data Shift Pulse
6	CL1 (LP)	Data Latch Pulse
7	Disp	H: ON L: OFF
8	Vdd	Power Supply for LOGIC
9	Vss	Power Supply (0V)
10	VLCD	Power Supply for LCD (+ V)
11	DB0	Data Bus Line
12	DB1	Data Bus Line
13	DB2	Data Bus Line
14	DB3	Data Bus Line

