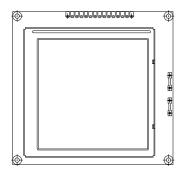




# 160 x 160 Dots Graphic LCD



#### **FEATURES**

- · No Built-in controller
- + 5V power supply
- 1/160 duty cycle
- 4-Bit parallel or 1-Bit serial interface mode

MECHANICAL DATA				
ITEM	STANDARD VALUE	UNIT		
Module Dimension	89.2 x 85.0	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	5.52	V
Input Voltage	VI	- 0.3	_	VDD	٧

NOTE: VSS = 0 Volt, VDD = 5.0 Volt

ELECTRICAL SPECIFICATIONS						
ITEM	SYMBOL	CONDITION	STANDARD VALUE		JE	UNIT
			MIN.	TYP.	MAX.	
Input Voltage	VDD	L level	0.7V <sub>DD</sub>	_	V <sub>DD</sub>	V
	VIO	H level	_	_	0.3V <sub>DD</sub>	V
Supply Current	IDD	VDD = 5V	_	1.5	3.0	mA
Recommended LC Driving		- 20°C	16.5	18.0	19.5	
Voltage for Normal Temp.	VDD-V0	25°C	15.5	17.0	18.5	V
Version Module		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	mm
EL	IEL	Vel = 110VAC; 400Hz	_	_	5.0	mA

Document Number: 37243 Revision 01-Oct-02

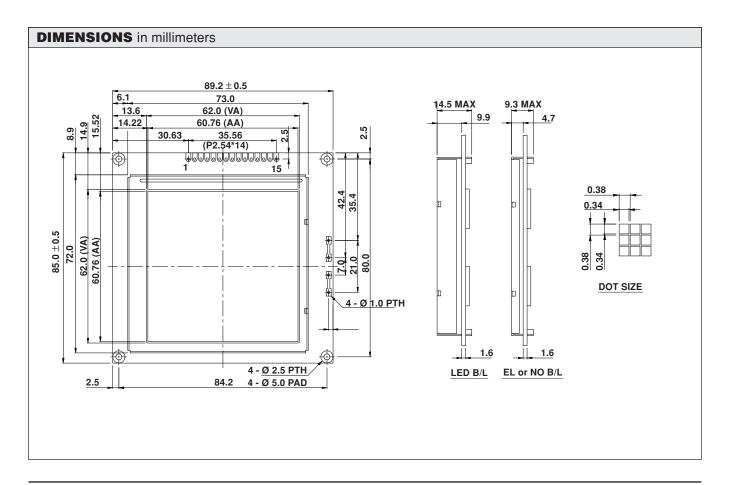
### LCD-160G160A

## Vishay

#### 160 x 160 Dots Graphic LCD



PIN NUMBER	SYMBOL	FUNCTION
1	Vss (GND)	Ground
2	М	Control signal for A.C.driving
3	FLM	The FLM Signal Indicates the Beginning of each Display Cycle
4	CL1	The CL1 Latches the Serial Data in Shift Register
5	CL2	Clock Signal for Shifting the Serial Data
6	DB3	Data Bus Line
7	DB2	Data Bus Line
8	DB1	Data Bus Line
9	DB0	Data Bus Line
10	Vee	Power Supply for LCD Driving
11	Vdd	Power Supply (+ 5V)
12	Vo	Contrast Adjustment
13	DISPOFF	Controls Display off, 0: off, 1: on
14	А	Power Supply for B/L
15	K	Power Supply for B/L





Vishay

#### **Disclaimer**

All product specifications and data are subject to change without notice.

Vishay Intertechnology, Inc., its affiliates, agents, and employees, and all persons acting on its or their behalf (collectively, "Vishay"), disclaim any and all liability for any errors, inaccuracies or incompleteness contained herein or in any other disclosure relating to any product.

Vishay disclaims any and all liability arising out of the use or application of any product described herein or of any information provided herein to the maximum extent permitted by law. The product specifications do not expand or otherwise modify Vishay's terms and conditions of purchase, including but not limited to the warranty expressed therein, which apply to these products.

No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document or by any conduct of Vishay.

The products shown herein are not designed for use in medical, life-saving, or life-sustaining applications unless otherwise expressly indicated. Customers using or selling Vishay products not expressly indicated for use in such applications do so entirely at their own risk and agree to fully indemnify Vishay for any damages arising or resulting from such use or sale. Please contact authorized Vishay personnel to obtain written terms and conditions regarding products designed for such applications.

Product names and markings noted herein may be trademarks of their respective owners.

Revision: 18-Jul-08

Document Number: 91000 www.vishay.com