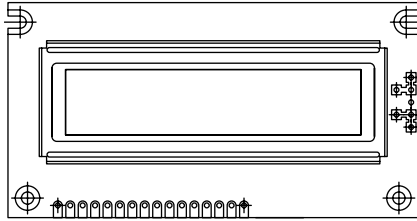


144 x 32 Graphic LCD


FEATURES

- Type: Graphic
- Display format: 144 x 32 dots
- Built-in controller: ST7920
- Duty cycle: 1/32
- + 5 V power supply
- Chinese version
- Same size with LCD-016N002A
- Compliant to RoHS directive 2002/95/EC


RoHS
COMPLIANT

MECHANICAL DATA		
ITEM	STANDARD VALUE	UNIT
Module Dimension	84.0 x 44.0 x 9.4	mm
Viewing Area	66.0 x 16.0	
Dot Size	0.38 x 0.38	
Dot Pitch	0.42 x 0.42	
Mounting Hole	79.0 x 36.0	
Character Size	N/a	

ABSOLUTE MAXIMUM RATINGS					
ITEM	SYMBOL	STANDARD VALUE			UNIT
		MIN.	TYP.	MAX.	
Power Supply	V_{DD} to V_{SS}	4.75	5.0	5.25	V
Input Voltage	V_I	0	-	V_{DD}	

Note

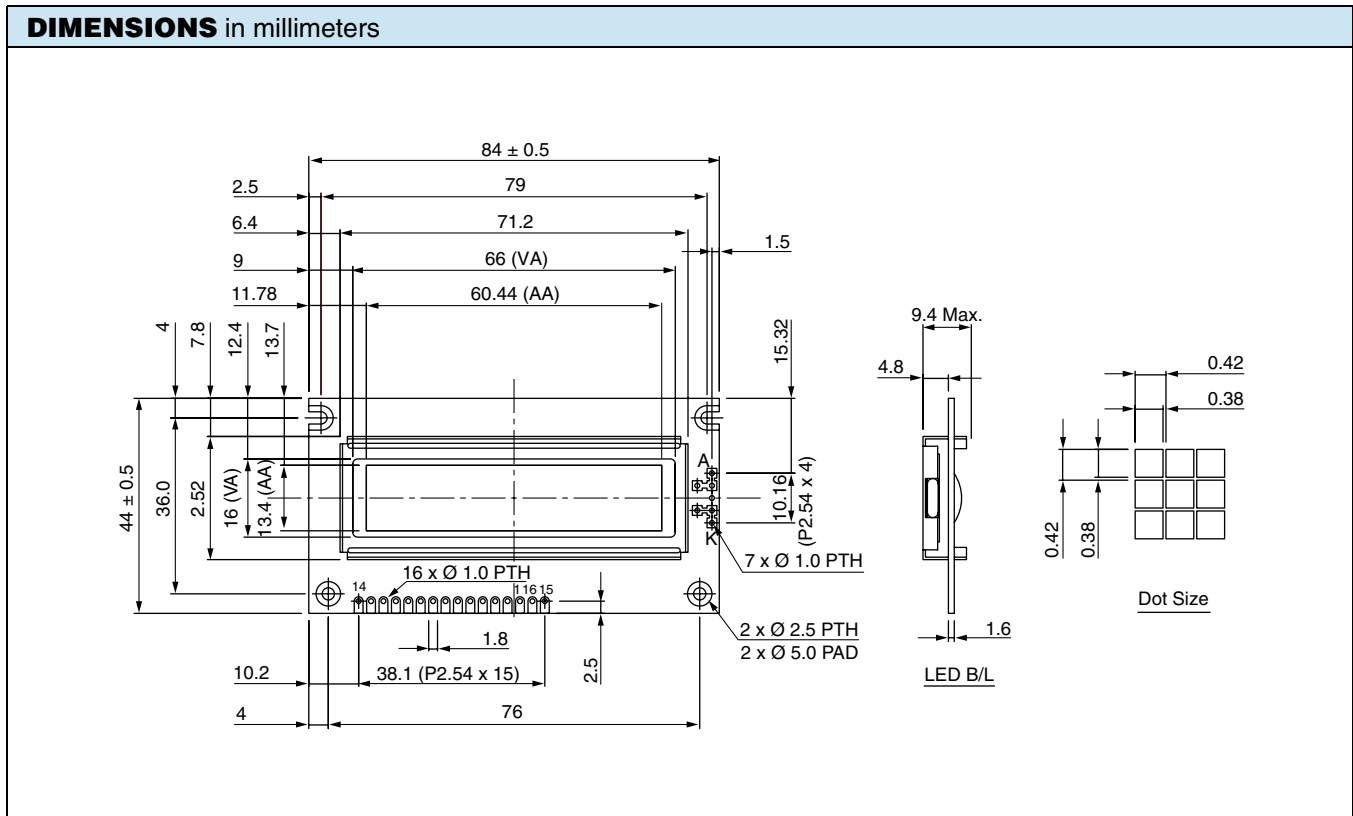
- $V_{SS} = 0$ V, $V_{DD} = 5.0$ V

ELECTRICAL CHARACTERISTICS						
ITEM	SYMBOL	CONDITION	STANDARD VALUE			UNIT
			MIN.	TYP.	MAX.	
Input Voltage	V_{DD}	-	4.5	5.0	5.5	V
Supply Current	I_{DD}	$V_{DD} = +5$ V	-	1.2	1.5	mA
Recommended LC Driving Voltage for Normal Temperature Version Module	V_{DD} to V_0	- 20 °C	-	-	6.0	V
		25 °C	-	4.7	-	
		70 °C	4.0	-	-	
CCFL Starting Voltage	V_{FLS}	25 °C	-	-	-	V_{RMS}
CCFL Driving Voltage	V_{FLD}	25 °C	-	-	-	
CCFL Driving Current	I_{FLD}	$V_{FQ} = 450$ V_{RMS} , 30 kHz	-	-	-	mA_{RMS}
LED Forward Voltage	V_F	25 °C	-	4.0	4.3	V
LED Forward Current - Array	I_F	25 °C	-	130	260	mA
EL Power Supply Current	I_{EF}	$V_{EL} = 110$ V_{AC} , 400 Hz	-	20	40	

OPTIONS									
PROCESS COLOR						BACKLIGHT			
TN	STN Gray	STN Yellow	STN Blue	FSTN B&W	STN Color	None	LED	EL	CCFL
	x	x	x	x		x	x	x	

For detailed information, please see the "Product Numbering System" document.

INTERFACE PIN FUNCTION			
PIN NO.	SYMBOL	PIN NO.	FUNCTION
1	V _{SS}		Ground
2	V _{DD}		Supply voltage for logic
3	V ₀		NC
4	RS		H/L register select signal
5	R/W		H/L read/write signal
6	E		Enable signal
7	DB0		Data bus line
8	DB1		Data bus line
9	DB2		Data bus line
10	DB3		Data bus line
11	DB4		Data bus line
12	DB5		Data bus line
13	DB6		Data bus line
14	DB7		Data bus line
15	A		Positive voltage output
16	K		Power supply for LED backlight (-)





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.