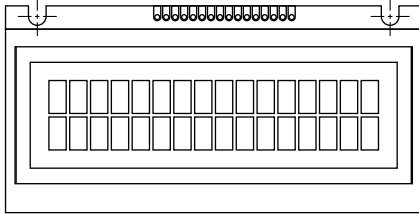


## 16 x 2 Character LCD



### FEATURES

- Type: Character
- Display format: 16 x 2 characters
- Built-in controller: ST 7066 (or equivalent)
- Duty cycle: 1/16
- 5 x 8 dots includes cursor
- + 5 V power supply
- Material categorization: For definitions of compliance please see [www.vishay.com/doc?99912](http://www.vishay.com/doc?99912)


**RoHS**  
COMPLIANT

MECHANICAL DATA		
ITEM	STANDARD VALUE	UNIT
Module Dimension	59.0 x 29.3	mm
Viewing Area	52.0 x 15.0	
Dot Size	0.45 x 0.54	
Dot Pitch	0.50 x 0.59	
Mounting Hole	50.0	
Character Size	2.45 x 4.67	

ABSOLUTE MAXIMUM RATINGS					
ITEM	SYMBOL	STANDARD VALUE			UNIT
		MIN.	TYP.	MAX.	
Power Supply	$V_{DD}$ to $V_{SS}$	- 0.3	-	7.0	V
Input Voltage	$V_I$	$V_{SS}$	-	$V_{DD}$	

#### Note

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

ELECTRICAL CHARACTERISTICS						
ITEM	SYMBOL	CONDITION	STANDARD VALUE			UNIT
			MIN.	TYP.	MAX.	
Input Voltage	$V_{DD}$	$V_{DD} = +5\text{ V}$	4.5	5.0	5.5	V
Supply Current	$I_{DD}$	$V_{DD} = +5\text{ V}$	-	1.2	1.5	mA
Recommended LC Driving Voltage for Normal Temperature Version Module	$V_{DD}$ to $V_0$	- 20 °C	-	-	-	V
		0 °C	-	-	-	
		25 °C	-	3.8	-	
		50 °C	-	-	-	
		70 °C	-	-	-	
LED Forward Voltage	$V_F$	25 °C	-	4.2	-	V
LED Forward Current - Edge	$I_F$	25 °C	-	40	-	mA
EL Power Supply Current	$I_{EL}$	$V_{EL} = 110\text{ V}_{AC}$ , 400 Hz	-	-	5.0	mA

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	x	

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

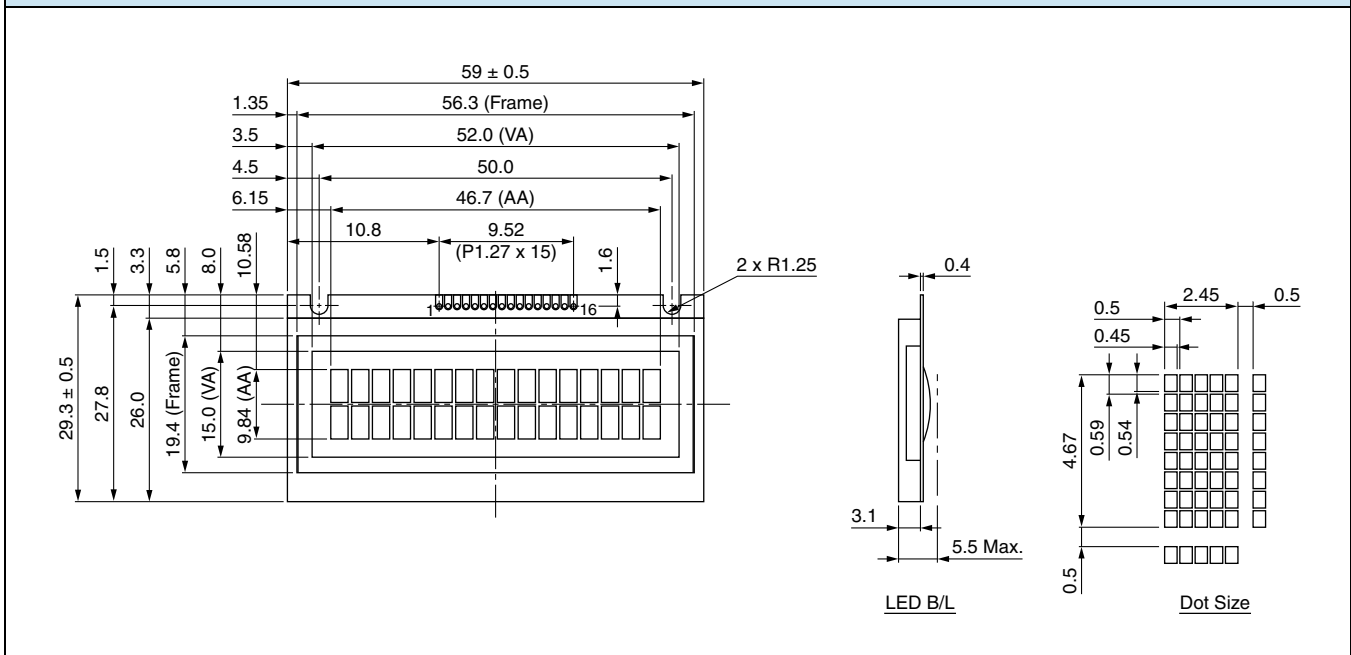
**DISPLAY CHARACTER ADDRESS CODE**

Display Position

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
DD RAM Address	00	01	02	03	04	05	06	07	08	09	0A	0B	0C	0D	0E	0F
DD RAM Address	40	41	42	43	44	45	46	47	48	49	4A	4B	4C	4D	4E	4F

**INTERFACE PIN FUNCTION**

PIN NO.	SYMBOL	FUNCTION
1	$V_{LED}$	Power supply for B/L(-)
2	$V_{SS}$	Ground
3	$V_{DD}$	Supply voltage for logic
4	$V_0$	Operation voltage for LCD
5	RS	H: Data/L: Instruction
6	$R/\bar{W}$	H/L read/write data
7	E	Chip enable signal
8	DB0	Data bit 0
9	DB1	Data bit 1
10	DB2	Data bit 2
11	DB3	Data bit 3
12	DB4	Data bit 4
13	DB5	Data bit 5
14	DB6	Data bit 6
15	DB7	Data bit 7
16	$N_C/V_{EE}$	NC/negative voltage output

**DIMENSIONS** in millimeters




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