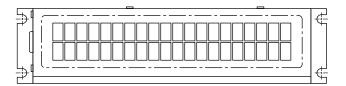




20 x 2 Character LCD



FEATURES

• Type: Character

• Display format: 20 x 2 characters

• Built-in controller: KS 0066 (or equivalent)

• Duty cycle: 1/16

• 5 x 8 dots includes cursor

• + 5 V power supply (also available for + 3 V)

• LED can be driven by pin 17, pin 18

• N.V. optional for + 3 V power supply

• Compliant to RoHS directive 2002/95/EC

MECHANICAL DATA						
ITEM	STANDARD VALUE	UNIT				
Module Dimension	89.0 x 21.5					
Viewing Area	75.0 x 15.0					
Dot Size	0.55 x 0.60	mm				
Dot Pitch	0.60 x 0.65	111111				
Mounting Hole	86.0 x 15.5					
Character Size	2.95 x 5.15					

ABSOLUTE MAXIMUM RATINGS						
ITEM	CVMPOL	STAN	LINUT			
IIEW	SYMBOL	MIN.	TYP.	MAX.	UNIT	
Power Supply	V_{DD} to V_{SS}	- 0.3	-	6.7	\/	
Input Voltage	VI	- 0.3	-	V _{DD}	V	

Note

• V_{SS} = 0 V, V_{DD} = 5.0 V

ELECTRICAL CHARACTERISTICS							
ITEM	SYMBOL	CONDITION	ST	STANDARD VALUE			
II EWI	STWIBOL	CONDITION	MIN.	TYP.	MAX.	UNIT	
Input Voltage	V_{DD}	$V_{DD} = + 5 V$	4.75	=	5.25	V	
Supply Current	I _{DD}	$V_{DD} = + 5 V$	-	1.2	-	mA	
Recommended LC Driving Voltage for Normal Temperature Version Module		- 20 °C	-	=	5.2		
		0 °C	-	=	4.5		
	V _{DD} to V ₀	25 °C	-	4.2	-	V	
		50 °C	3.8	=	-		
		70 °C	3.5	=	-		

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

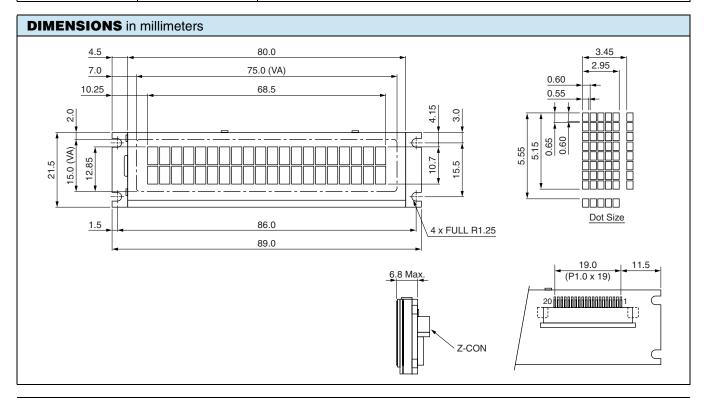
For detailed information, please see the "Product Numbering System" document.

20 x 2 Character LCD



DISPLAY CHARACTER ADDRESS CODE Display Position **DD RAM Address** 0D 0A 0B 0C 0E 0F DD RAM Address 4A 4B 4C 4D 4E 4F

INTERFACE PIN FUNCTION					
PIN NO.	SYMBOL	FUNCTION			
1	NC	No connection			
2	NC	No connection			
3	V _{SS}	Ground			
4	V _{DD}	+ 3 V or + 5 V			
5	V ₀	Contrast adjustment			
6	RS	H/L register select signal			
7	R/W	Date read/write			
8	E	$H \rightarrow L$ enable signal			
9	DB0	Data bit 0			
10	DB1	Data bit 1			
11	DB2	Data bit 2			
12	DB3	Data bit 3			
13	DB4	Data bit 4			
14	DB5	Data bit 5			
15	DB6	Data bit 6			
16	DB7	Data bit 7			
17	V _{LED+}	Power supply for LED +			
18	V _{LED} -	Power supply for LED -			
19	V _{EE}	Negative voltage output			
20	NC	No connection			





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Vishay

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