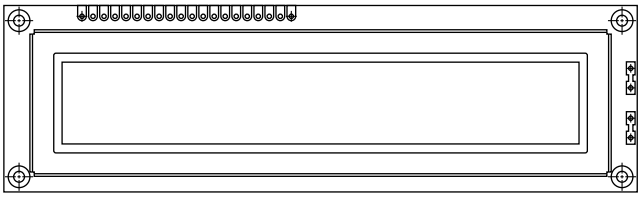
202 x 32 Graphic LCD



FEATURES

- Type: Graphic
- Display format: 202 x 32 dots
- Built-in controller: Avant (SBN1661G) or equivalent
- Duty cycle: 1/32
- Built-in oscilation
- + 2.85 V to + 5 V power supply
- Material categorization: For definitions of compliance please see www.vishay.com/doc?99912

Pb-free RoHS COMPLIANT

MECHANICAL DATA

ITEM	STANDARD VALUE	UNIT
Module Dimension	146.0 x 43.0	mm
Viewing Area	123.0 x 23.0	
Dot Size	0.57 x 0.57	
Dot Pitch	0.59 x 0.59	
Mounting Hole	139.0 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}	- 0.3	-	8.0	V
Input Voltage	V_I	- 0.3	-	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}	V_{DD} = + 3 V ± 5 V	2.7	3.0	3.3	V
Supply Current	I_{DD}	V_{DD} = + 3 V	-	10	-	mA
Recommended LC Driving Voltage for Normal Temperature Version Module	V_{DD} to V_0	- 20 °C	5.9	6.2	6.5	V
		0 °C	5.7	6.0	6.3	
		25 °C	4.6	4.7	4.8	
		50 °C	4.3	4.4	4.5	
		70 °C	3.3	3.4	3.5	
LED Forward Voltage	V_F	25 °C	1.7	-	2.5	V
LED Forward Current	I_F	25 °C	-	-	200	mA
EL Power Supply Current	I_{EL}	V_{EL} = 110 V_{AC}, 400 Hz	-	-	5.0	mA

OPTIONS

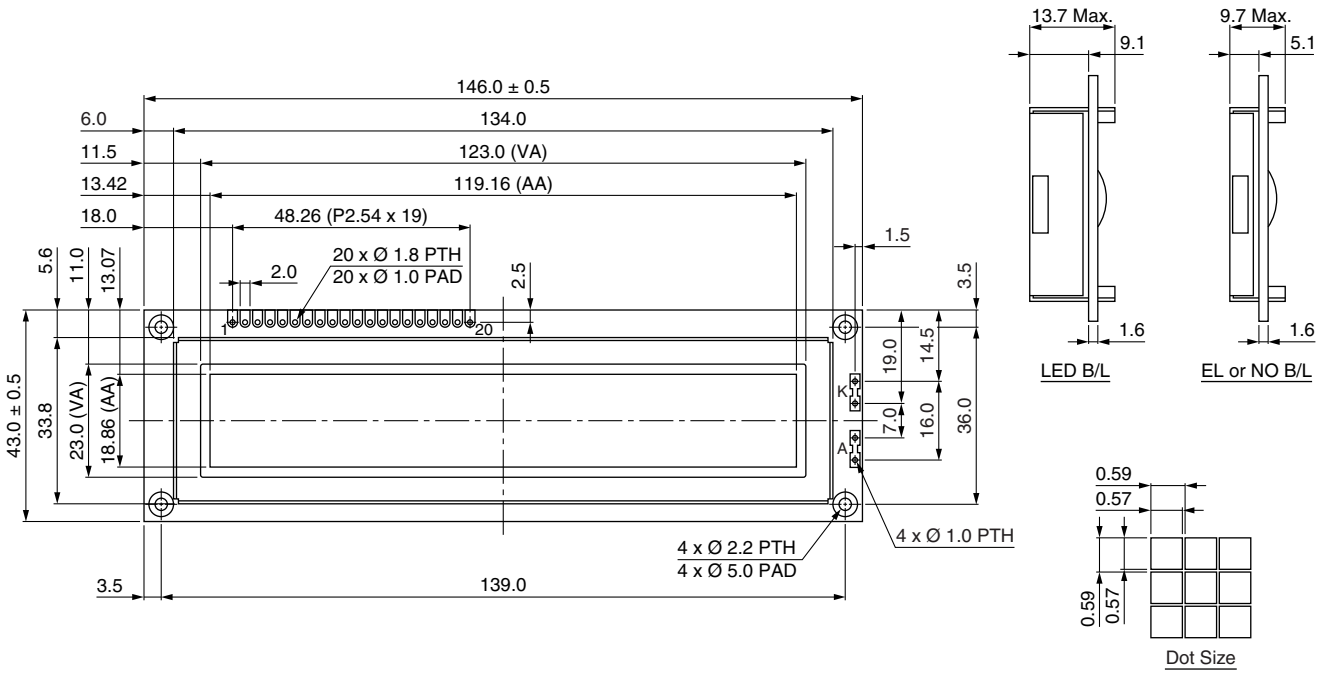
PROCESS COLOR						BACKLIGHT			
TN	STN Gray	STN Yellow	STN Blue	FSTN B&W	STN Color	None	LED	EL	CCFL
	x	x	x	x		x	x	x	

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

INTERFACE PIN FUNCTION

PIN NO.	SYMBOL	FUNCTION
1	V_{SS}	Ground
2	V_{DD}	Power supply (+ 3 V, + 5 V)
3	V_0	Contrast adjustment
4	A_0	H: D0 to D7 are display data/L: D0 to D7 are display control data
5	R/$\overline{W}$	WR for 80 serial R/W for 68 serial
6	CS1	Enable chip 1
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	V_{EE}	Negative voltage output
16	$\overline{RESET}$	Reset signal
17	A	+ 4.2 V for LED, R_A = 0 Ω
18	K	Power supply for B/L (0 V)
19	CS2	Enable chip 2
20	CS3	Enable chip 3

DIMENSIONS in millimeters



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