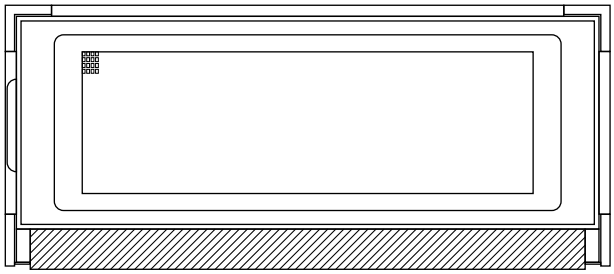
122 x 32 Graphic LCD



FEATURES

- Type: graphic
- Display format: 122 x 32 dots
- Built-in controller: SBN1661G
- Duty cycle: 1/32
- Available for internal oscillation 2 kHz
- +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	65.4 x 28.2 x 10.5	mm
Viewing area	54.8 x 19.0	
Dot size	0.36 x 0.41	
Dot pitch	0.40 x 0.45	
Mounting hole	n/a	
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}	V_{DD} = +5 V ± 1 V	4.5	5.0	5.5	V
Supply current	I_{DD}	V_{DD} = +5 V	-	1.0	1.4	mA
Recommended LC driving voltage for normal temperature version module	V_{DD} to V_0	-20 °C	4.7	4.9	5.5	V
		0 °C	4.5	4.7	4.9	
		25 °C	4.3	4.5	4.7	
		50 °C	4.2	4.3	4.5	
		70 °C	4.0	4.1	4.3	
LED forward voltage	V_F	25 °C	1.7	2.1	2.5	V
LED forward current	I_F	25 °C	-	100	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	-	-

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

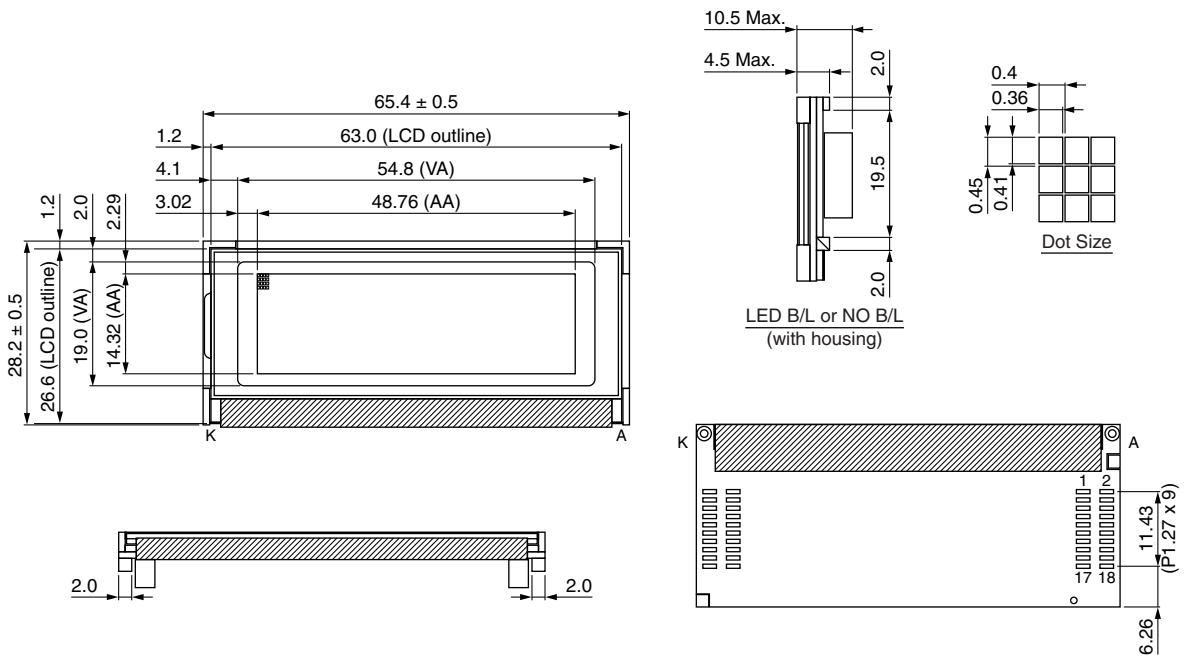
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INTERFACE PIN FUNCTION

PIN NO.	SYMBOL	FUNCTION
1	V_{DD}	Supply voltage for logic ground
2	V_{SS}	Ground
3	V_0	Operating voltage for LCD
4	$\overline{RES}$	L: reset the LCM
5	E1	Enable chip 1
6	E2	Enable chip 2
7	R / $\overline{W}$	H / L read / write data
8	A_0	H / L data / instruction
9	DB0	Data bus line
10	DB1	Data bus line
11	DB2	Data bus line
12	DB3	Data bus line
13	DB4	Data bus line
14	DB5	Data bus line
15	DB6	Data bus line
16	DB7	Data bus line
17	A	+2.1 V for LED
18	K	Power supply for backlight (0 V)

DIMENSIONS in millimeters



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