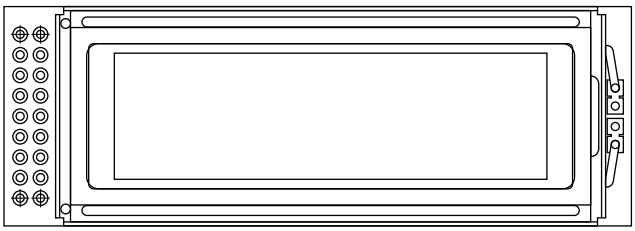
122 x 32 Graphic LCD



FEATURES

- Type: graphic
- Display format: 122 x 32 dots
- Built-in controller: SBN1661G
- Duty cycle: 1/32
- N.V. optional for +3 V power supply
- LED backlight only white version
- 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	77.8 x 27.2	mm
Viewing area	60.0 x 18.0	
Dot size	0.40 x 0.45	
Dot pitch	0.44 x 0.49	
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}	-	4.5	5.0	5.5	V
Supply current	I_{DD}	-	-	1.0	-	mA
Recommended LC driving voltage for normal temperature version module	V_{DD} to V_0	-20 °C	-	-	5.8	V
		25 °C	-	4.9	-	
		70 °C	4.6	-	-	
CCFL starting voltage	V_{FLS}	25 °C	-	-	-	V_{RMS}
CCFL driving voltage	V_{FLD}	25 °C	-	-	-	V_{RMS}
CCFL driving current	I_{FLD}	V_{FQ} = 450 V_{RMS}, 30 kHz	-	-	-	mA_{RMS}
LED forward voltage	V_F	25 °C	3.4	3.5	3.6	V
LED forward current	I_F	2 °C	32	40	60	mA
EL power supply current	I_{EF}	V_{EL} = 110 V_{AC}, 400 Hz	-	-	5.0	mA

OPTIONS

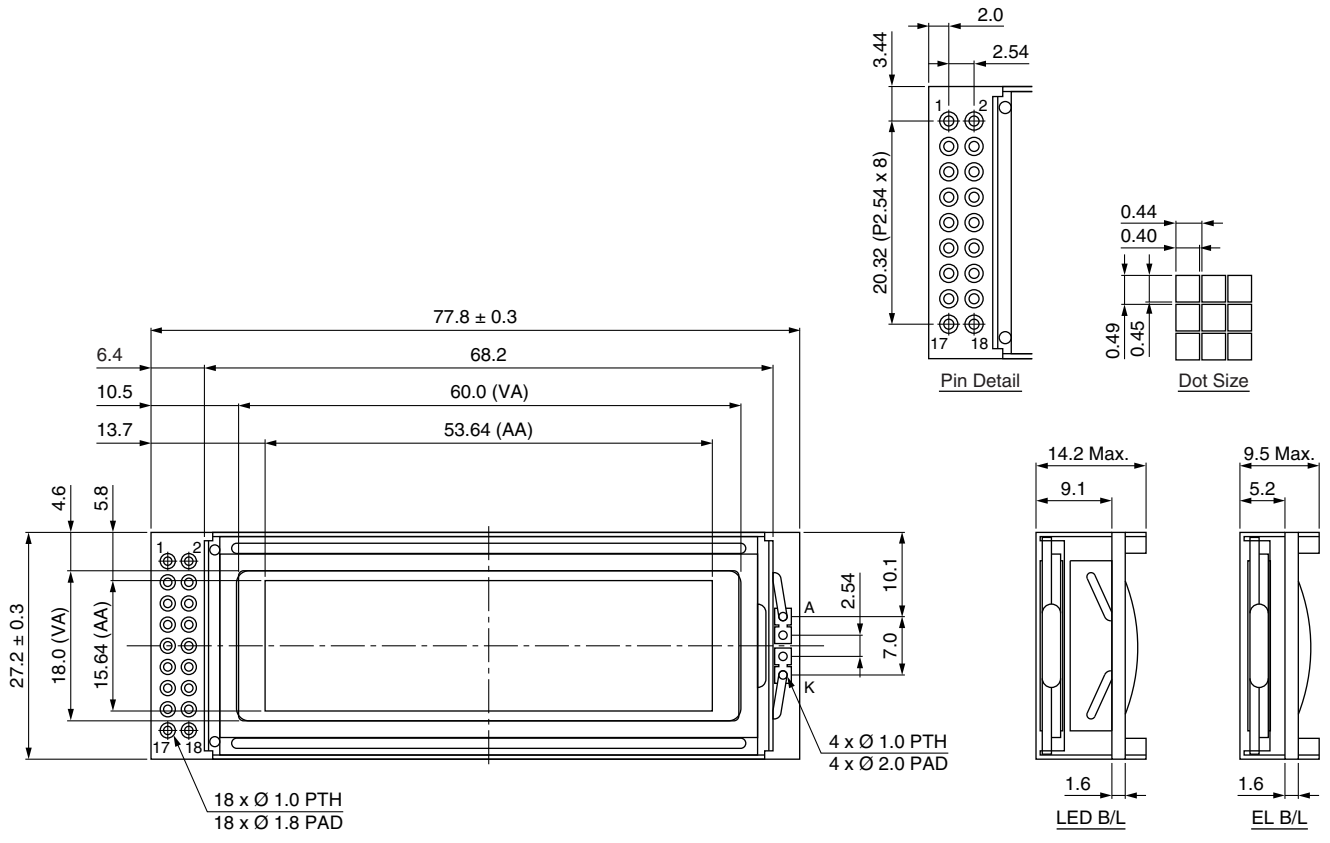
PROCESS COLOR						BACKLIGHT			
TN	STN GRAY	STN YELLOW	STN BLUE	FSTN B&W	STN COLOR	NONE	LED	EL	CCFL
-	x	x	-	x	-	x	x	x	-

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

INTERFACE PIN FUNCTION

PIN NO.	SYMBOL	FUNCTION
1	V_{SS}	Ground
2	V_{DD}	Supply voltage for logic
3	V_0	Operating voltage for LCD
4	A_0	H: data / L: instruction
5	CS1	Chip select signal for IC1
6	CS2	Chip select signal for IC2
7	NC / CL	No connection / external clock 2 kHz
8	NC / E	No connection / enable signal
9	R / $\overline{W}$	H: read data / L: write data
10	DB0	Data bus line
11	DB1	Data bus line
12	DB2	Data bus line
13	DB3	Data bus line
14	DB4	Data bus line
15	DB5	Data bus line
16	DB6	Data bus line
17	DB7	Data bus line
18	$\overline{RST}$	H → L: the LCM be reset

DIMENSIONS in millimeters



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