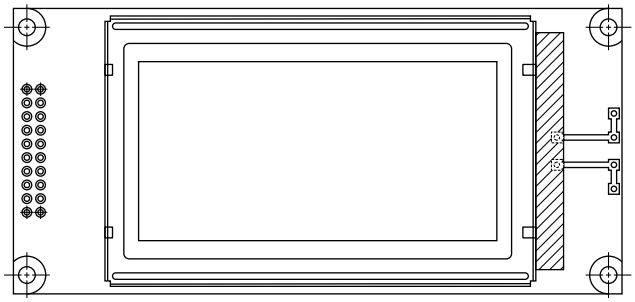
128 x 64 Graphic LCD



FEATURES

- Type: graphic
- Display format: 128 x 64 dots
- Built-in controller: NT7107, NT7108
- Duty cycle: 1/64
- +5 V power supply
- N.V. built-in
- 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	113.0 x 53.0	mm
Viewing area	72.0 x 40.0	
Dot size	0.48 x 0.48	
Dot pitch	0.52 x 0.52	
Mounting hole	108.0 x 46.0	
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	- 0.3	-	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}	L level	0.7 V_{DD}	-	V_{DD}	V
	V_{IO}	H level	0	-	0.3 V_{DD}	V
Supply current	I_{DD}	V_{DD} = +5 V	-	2.5	7.5	mA
Recommended LC driving voltage for normal temperature version module	V_{DD} to V_0	-20 °C	9.9	10.4	10.9	V
		0 °C	9.7	10.2	10.7	
		25 °C	8.9	9.4	9.9	
		50 °C	8.6	9.1	9.6	
		70 °C	8.4	8.9	9.4	
LED forward voltage	VF	25 °C	-	4.2	4.6	V
LED forward current - array	I_F	25 °C	-	330	660	mA
LED forward current - edge			-	120	240	
EL power supply current	I_{EL}	V_{EL} = 110 V_{AC}, 400 Hz	-	-	5.0	mA

OPTIONS

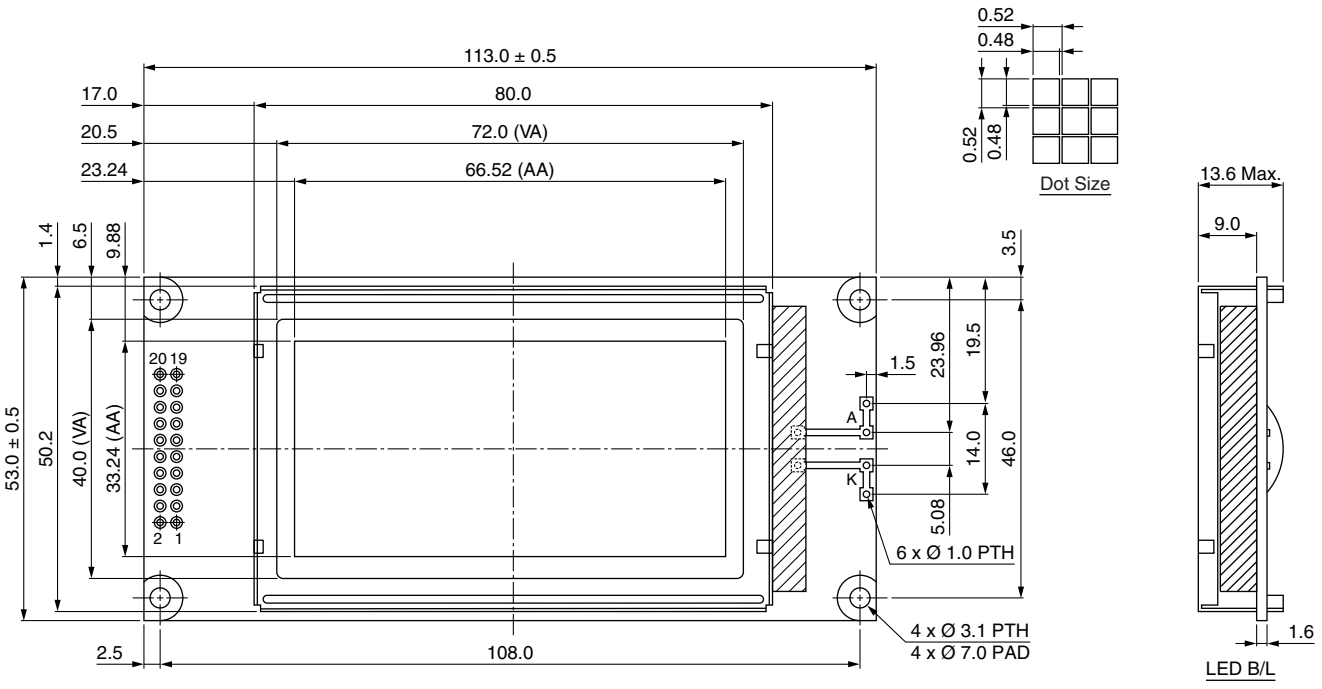
PROCESS COLOR						BACKLIGHT			
TN	STN GRAY	STN YELLOW	STN BLUE	FSTN B&W	STN COLOR	NONE	LED	EL	CCFL
-	x	x	x	x	-	x	x	x	-

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 for logic
3	V_0	Operating voltage LCD driving
4	D / I	Date / instruction
5	R / $\overline{W}$	H / L read / write signal
6	E	H → L enable signal
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	CS1	H → chip 1 enable
16	CS2	H → chip 2 enable
17	RES	Reset
18	V_{OUT}	Negative voltage output
19	A	Power supply for backlight
20	K	Power supply for backlight

DIMENSIONS in millimeters



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