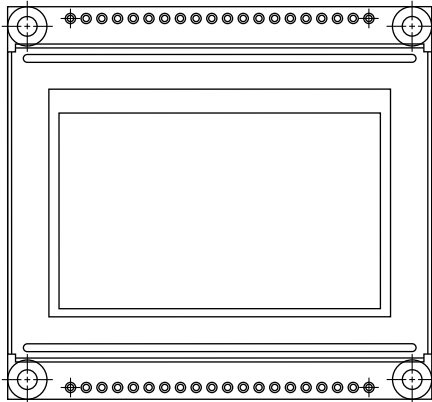


128 x 64 Graphic LCD



FEATURES

- Type: graphic
- Display format: 128 x 64 dots and 4 icons
- Built-in controller: NT7107, NT7108
- Duty cycle: 1/64
- +5 V power supply
- EL backlight (built-in EL inverter)
- N.V. built-in
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912


RoHS
COMPLIANT

MECHANICAL DATA		
ITEM	STANDARD VALUE	UNIT
Module dimension	54.0 x 50.0 x 7.5	mm
Viewing area	43.5 x 29.0	
Dot size	0.28 x 0.35	
Dot pitch	0.32 x 0.39	
Mounting hole	49.0 x 45.0	
Character size	n/a	

ABSOLUTE MAXIMUM RATINGS					
ITEM	SYMBOL	STANDARD VALUE			UNIT
		MIN.	TYP.	MAX.	
Power supply	V_{DD} to V_{SS}	2.8	5.0	5.5	V
Input voltage	V_I	-0.3	-	V_{DD}	

Note

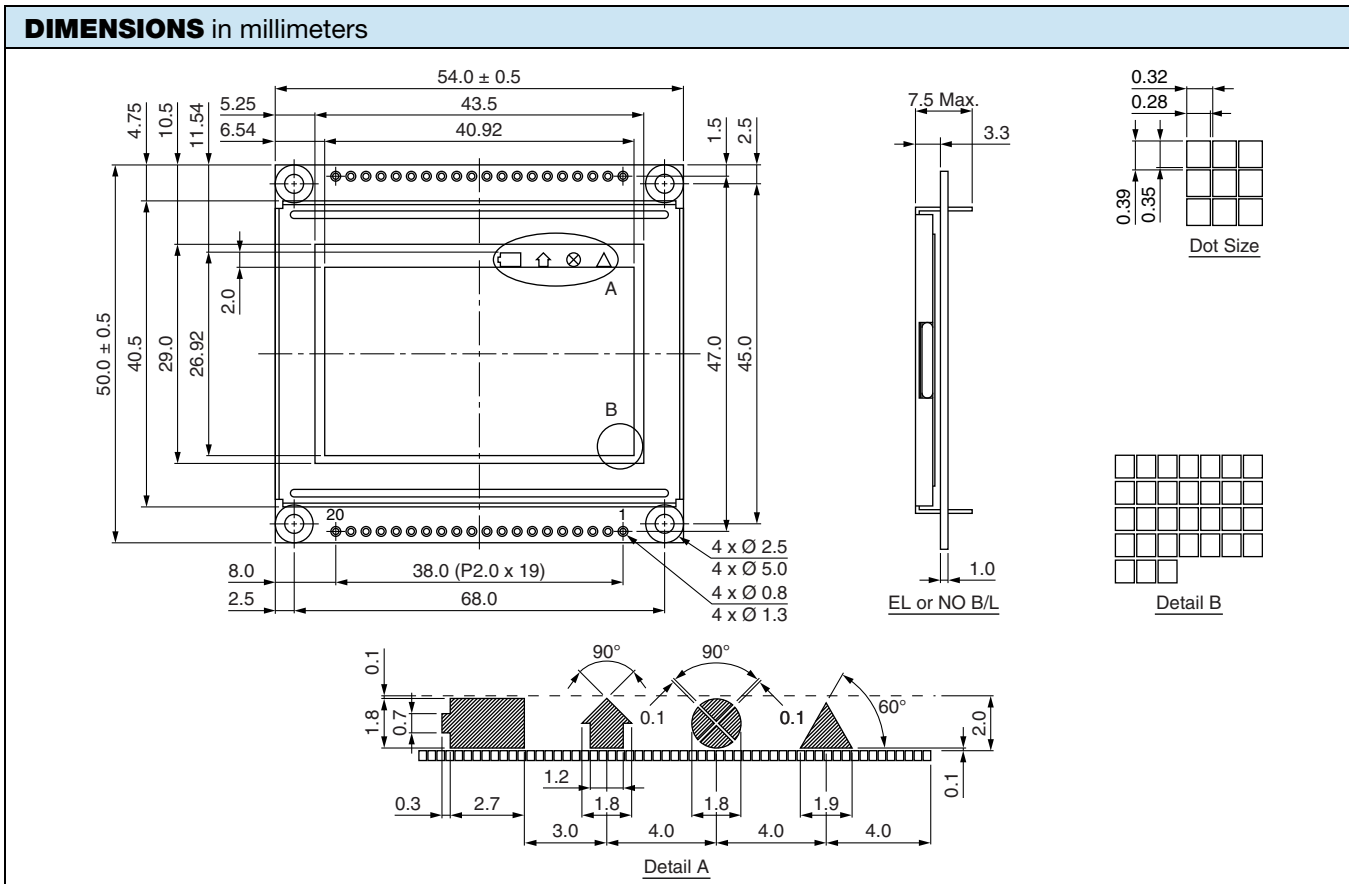
- $V_{SS} = 0$ V, $V_{DD} = 5.0$ V

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	-	$0.3 V_{DD}$	
Supply current	I_{DD}	$V_{DD} = +5$ V	-	10.0	-	mA
Recommended LC driving voltage for normal temperature version module	V_{DD} to V_0	-20 °C	9.3	9.5	9.8	V
		0 °C	9.1	9.3	9.6	
		25 °C	8.3	8.5	8.8	
		50 °C	7.2	7.3	7.8	
EL power supply current	I_{EL}	$V_{EL} = 110 V_{AC}, 400$ Hz	-	-	30.0	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	-

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

INTERFACE PIN FUNCTION		
PIN NO.	SYMBOL	FUNCTION
1	V _{SS}	Power supply (0 V)
2	V _{DD}	Power supply
3	V ₀	Power supply for LCD driver
4	D / \bar{I}	Register selection input / H: data / L: instruction (write) / busy flag address counter (read)
5	R / \bar{W}	Data read / write
6	E	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	Chip enable for D2 (segment 1 to 64)
16	CS2	Chip enable for D3 (segment 65 to 128)
17	\bar{RST}	Reset signal
18	V _{EE}	Power supply for LCD driving
19	BL+	Enable (on / off) for EL backlight
20	BL-	No connection





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