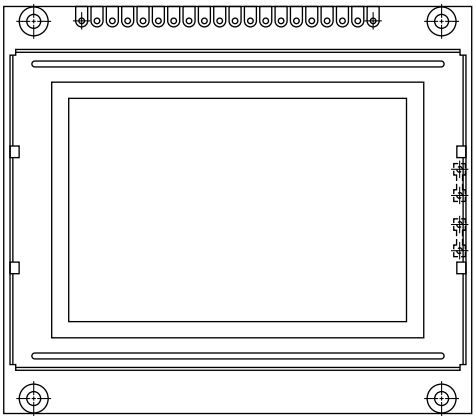
128 x 64 Graphic LCD



FEATURES

- Type: Graphic
- Display format: 128 x 64 dots
- Built-in controller: RA6963
- 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	78.0 x 70.0 x 14.3	mm
Viewing Area	62.0 x 44.0	
Dot Size	0.42 x 0.58	
Dot Pitch	0.44 x 0.60	
Mounting Hole	68.0 x 64.92	
Character Size	n/a	

ABSOLUTE MAXIMUM RATINGS

ITEM	SYMBOL	STANDARD VALUE			UNIT
		MIN.	TYP.	MAX.	
Power Supply	V_{DD} to V_{SS}	4.5	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	-	11.2	11.8	mA
Recommended LC Driving Voltage for Normal Temperature Version Module	V_{DD} to V_0	-20 °C	9.6	10.1	10.6	V
		0 °C	9.4	9.9	10.4	
		25 °C	9.4	9.6	10.4	
		50 °C	8.7	9.2	9.7	
		70 °C	8.5	9.0	9.5	
LED Forward Voltage	V_F	25 °C	-	4.2	-	V
LED Forward Current - Array Hight	I_F	25 °C	-	480	960	mA
LED Forward Current - Array Low			-	350	700	
EL Power Supply Current	I_{EL}	V_{EL} = 110 V_{AC}, 400 Hz	-	-	5.0	mA

OPTIONS

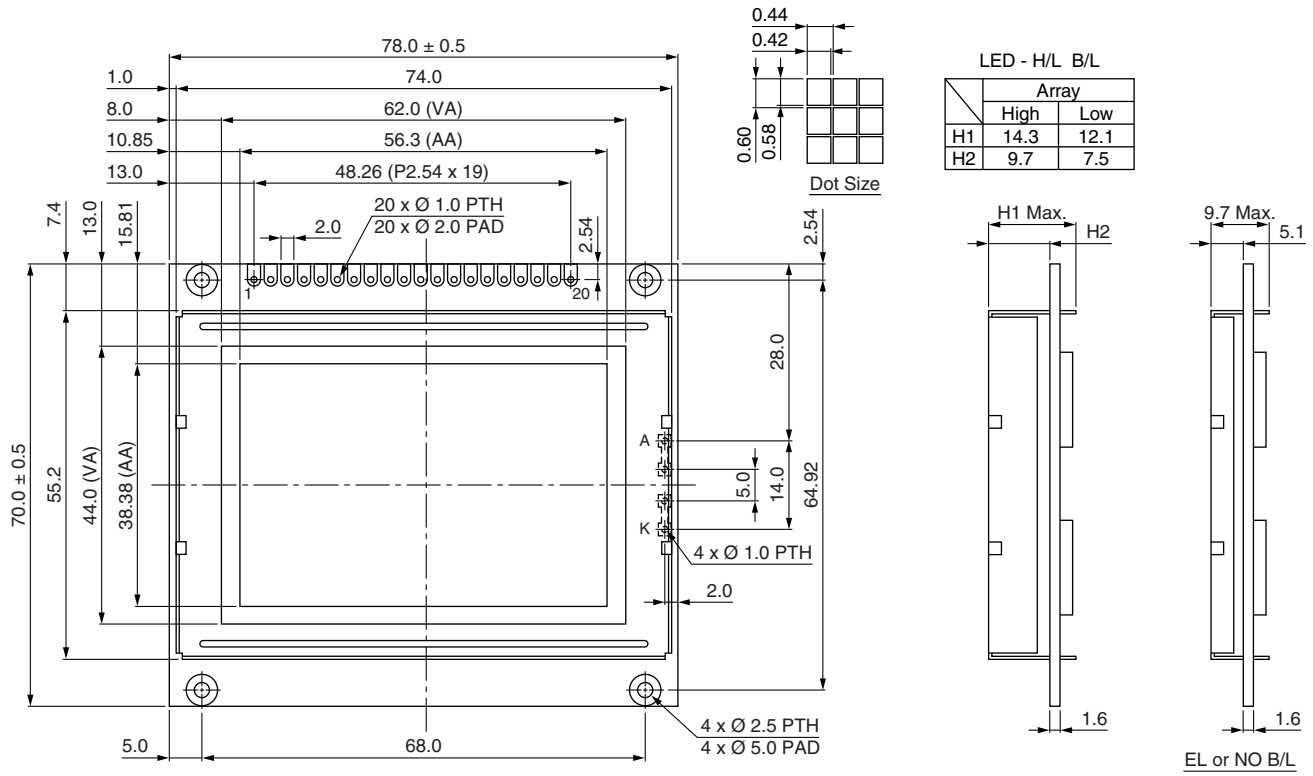
PROCESS COLOR						BACKLIGHT			
TN	STN Gray	STN Yellow	STN Blue	FSTN B&W	STN Color	None	LED	EL	CCFL
	x	x	x	x		x	x	x	

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

INTERFACE PIN FUNCTION

PIN NO.	SYMBOL	FUNCTION
1	FG/V_{EE}	Frame ground/N/V
2	V_{SS}	Power supply (0 V)
3	V_{DD}	Power supply (+5 V)
4	V_0	Power supply for LCD driver
5	$\overline{WR}$	Data write
6	$\overline{RD}$	Data read
7	$\overline{CE}$	Chip enable
8	$\overline{CD}$	Command/data read/write
9	$\overline{RST}$	Controller reset
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	FS	Font select
19	K	Power supply for LED B/L (0 V)
20	A	Power supply for LED (+4.2 V), R_A = 0 Ω

DIMENSIONS in millimeters



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