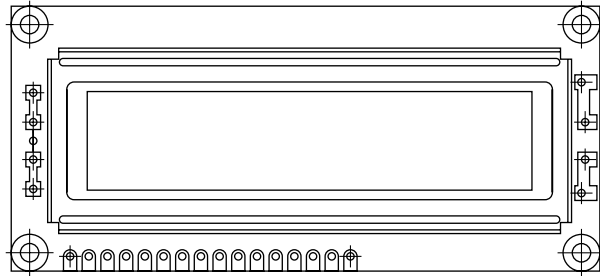


144 x 32 Graphic LCD



FEATURES

- Type: Graphic
- Display format: 144 x 32 dots
- Built-in controller: ST7920
- Duty cycle: 1/32
- + 5 V power supply
- Compliant to RoHS directive 2002/95/EC


RoHS
COMPLIANT

MECHANICAL DATA		
ITEM	STANDARD VALUE	UNIT
Module Dimension	80.0 x 36.0 x 9.4	mm
Viewing Area	66.0 x 16.0	
Dot Size	0.38 x 0.38	
Dot Pitch	0.42 x 0.42	
Mounting Hole	75.0 x 31.0	
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	-	V_{DD}	

Note

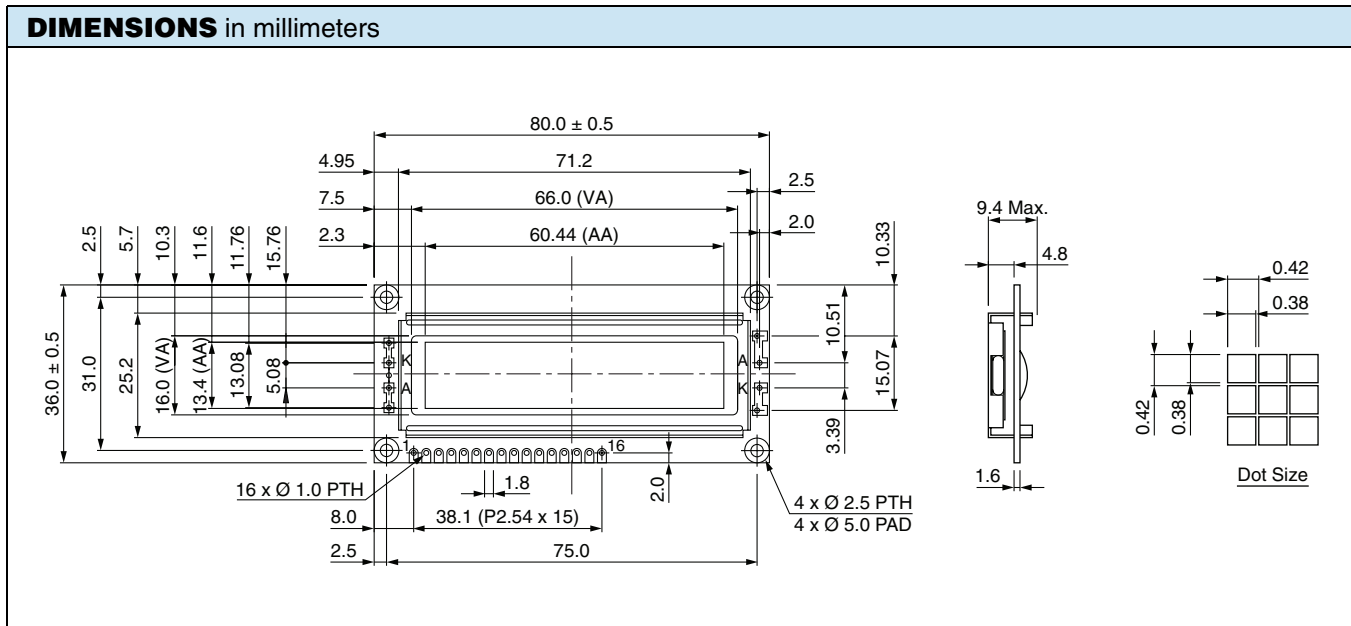
- $V_{SS} = 0$ V, $V_{DD} = 5.0$ V

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}	$V_{DD} = +5$ V	1.6	2.2	3.5	mA
Recommended LC Driving Voltage for Normal Temperature Version Module	V_{DD} to V_0	- 20 °C	-	-	5.5	V
		0 °C	-	-	-	
		25 °C	-	4.8	-	
		50 °C	-	-	-	
		70 °C	4.2	-	-	
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	4.0	4.2	4.4	V
LED Forward Current	I_F	25 °C	80	100	150	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	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	NC
4	RS	Register select signal
5	R _W	H: Read data/L: Write data
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	A/V _{OUT}	Power supply for B/L (+)/positive voltage output
16	K	Power supply for LED backlight (-)





Disclaimer

All product specifications and data are subject to change without notice.

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