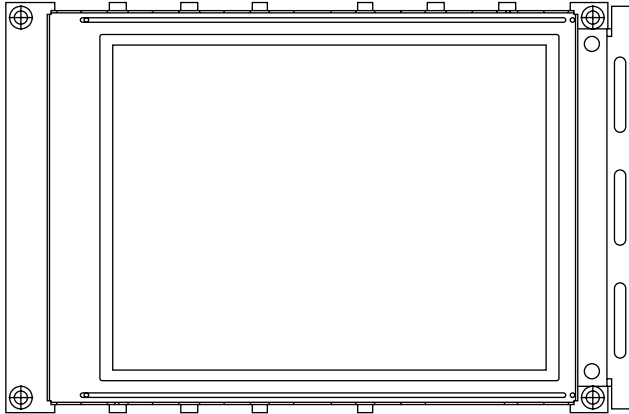


320 x 240 Graphic LCD



FEATURES

- Type: Graphic
- Display format: 320 x 240 dots
- Built-in controller: Epson S1D13700
- Duty cycle: 1/240
- Touch screen option
- Temperature compensation option
- BP2: DIP connection
- BP3: Touch panel driver
- Compliant to RoHS directive 2002/95/EC



RoHS
COMPLIANT

MECHANICAL DATA

ITEM	STANDARD VALUE	UNIT
Module Dimension	166.8 x 109.0	mm
Viewing Area	122.0 x 92.0	
Dot Size	0.34 x 0.34	
Dot Pitch	0.36 x 0.36	
Mounting Hole	152.0 x 101.0	
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	-	V_{DD}	

Note

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

ELECTRICAL CHARACTERISTICS

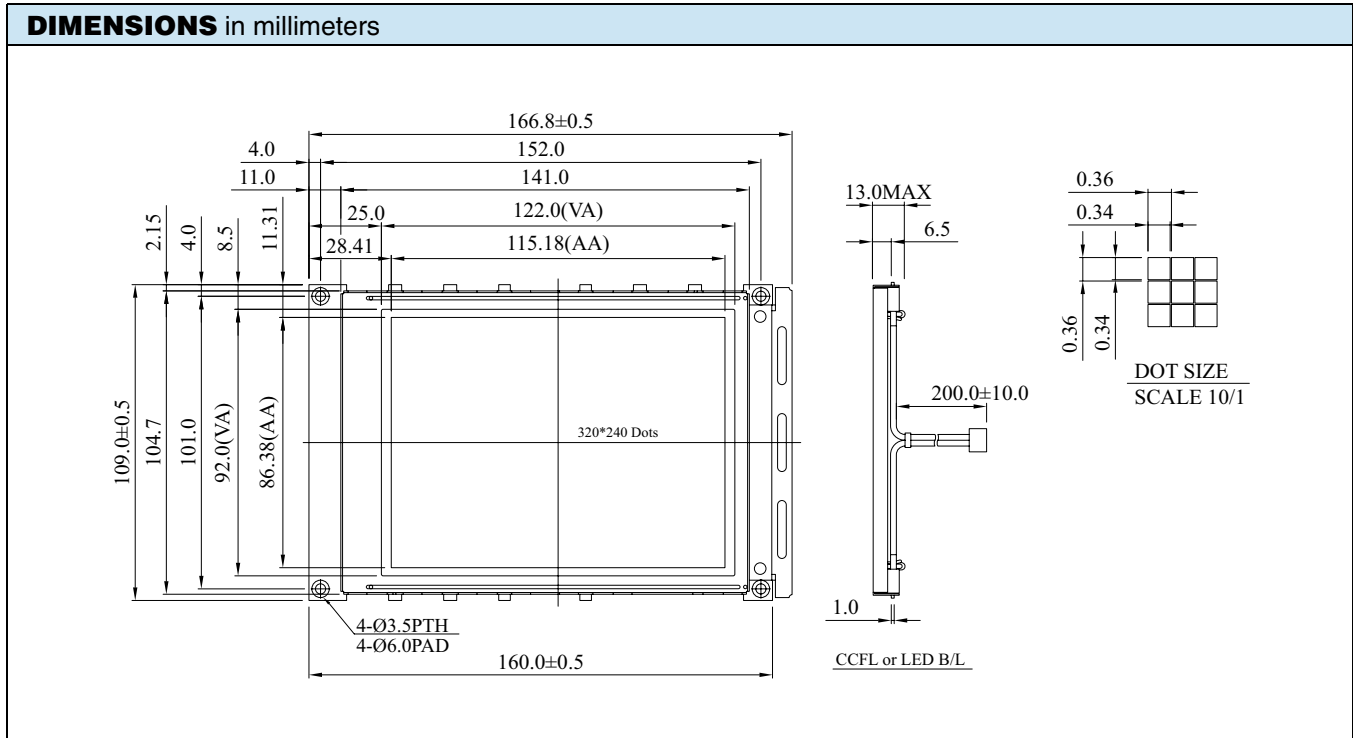
ITEM	SYMBOL	CONDITION	STANDARD VALUE			UNIT
			MIN.	TYP.	MAX.	
Input Voltage	V_{DD}	-	4.75	5.0	5.25	V
Supply Current	I_{DD}	$V_{DD} = +5.0$ V	65.0	75.0	85.0	mA
Recommended LC Driving Voltage for Normal Temperature Version Module	V_0 to V_{SS}	-20 °C	-	-	26.1	V
		25 °C	-	23.8	-	
		70 °C	22.2	-	-	
CCFL Starting Voltage	V_{FLS}	25 °C	-	600	-	V_{RMS}
CCFL Driving Voltage	V_{FLD}	25 °C	-	270	-	V_{RMS}
CCFL Driving Current	I_{FLD}	$V_{FQ} = 450 V_{RMS}, 30$ kHz	4.8	5.3	5.5	mA_{RMS}
LED Forward Voltage	V_F	25 °C	3.4	3.5	3.6	V
LED Forward Current	I_F	25 °C	140	160	180	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	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	Driving voltage for LCD
4	A ₀	RD = L, WR = H; AO = L: Data read; AO = H: Status read RD = H, WR = L; AO = L: Data write; AO = H: Command write
5	\overline{WR}	8080 family: Write signal/6800 family: R/W signal
6	\overline{RD}	8080 family: Read signal/6800 family: Enable clock
7	DB0	Date bus line
8	DB1	Date bus line
9	DB2	Date bus line
10	DB3	Date bus line
11	DB4	Date bus line
12	DB5	Date bus line
13	DB6	Date bus line
14	DB7	Date bus line
15	\overline{CS}	Chip select, active L
16	\overline{RES}	Controller reset signal, active L
17	V _{EE}	Negative voltage output
18	SEL	8088 or 6800 interface selection (1:68, 0:80)
19	F _{GND}	Frame ground
20	WAIT	Check busy





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