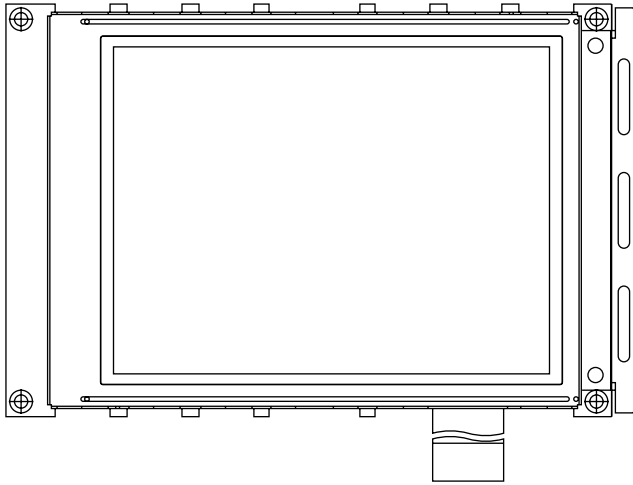


320 x 240 Graphic LCD



FEATURES

- Type: Graphic
- Display format: 320 x 240 dots
- Built-in controller: None
- Duty cycle: 1/240
- + 5 V power supply
- Touch screen option (analog type)
- 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}	4.75	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

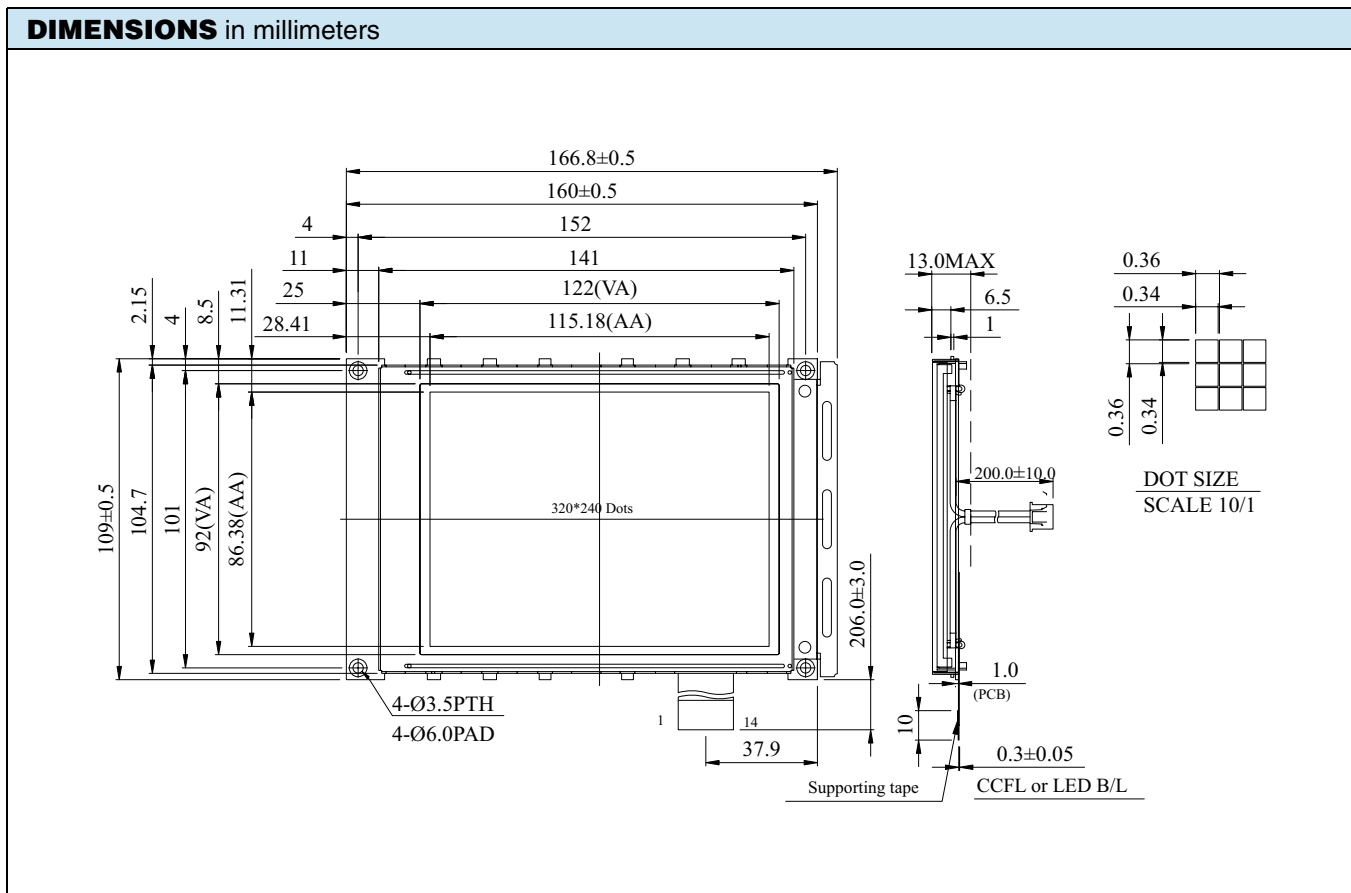
ITEM	SYMBOL	CONDITION	STANDARD VALUE			UNIT
			MIN.	TYP.	MAX.	
Input Voltage	V_{DD}	-	2.7	-	5.5	V
Supply Current	I_{DD}	$V_{DD} = + 5.0$ V	-	7.5	-	mA
Recommended LC Driving Voltage for Normal Temperature Version Module	V_0 to V_{SS}	- 20 °C	-	-	26.1	V
		25 °C	-	23.8	-	
		70 °C	20.9	-	-	
CCFL Starting Voltage	V_{FLS}	25 °C	-	600	-	V_{RMS}
CCFL Driving Voltage	V_{FLD}	25 °C	-	268	-	V_{RMS}
CCFL Driving Current	I_{FLD}	$V_{FQ} = 450 V_{RMS}, 30$ kHz	-	5.0	-	mA_{RMS}
LED Forward Voltage	V_F	25 °C	-	4.2	4.6	V
LED Forward Current	I_F	25 °C	-	180	360	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	DB0		Date bus line
2	DB1		Date bus line
3	DB2		Date bus line
4	DB3		Date bus line
5	DISPOFF		H: On/L: Off
6	FRAME		First line marker
7	M (NC)		Frame reverse signal (alternate signal)
8	LP		Data latch
9	CP		Data shift
10	V _{DD}		Power supply for logic
11	V _{SS}		Ground
12	V _{EE}		Power supply for LCD
13	V ₀		Operating voltage LCD driving
14	F _{GND}		Frame ground





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