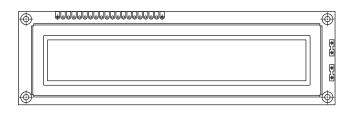


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COMPLIANT

202 x 32 Graphic LCD



MECHANICAL DATA				
ITEM	STANDARD VALUE	UNIT		
Module Dimension	146.0 x 43.0			
Viewing Area	123.0 x 23.0			
Dot Size	0.57 x 0.57			
Dot Pitch	0.59 x 0.59	mm		
Mounting Hole	139.0 x 36.0			
Character Size	N/a			

FEATURES

- Type: Graphic
- Display format: 202 x 32 dots
- RoHS • Built-in controller: Epson SED1520 (or equivalent)
- Duty cycle: 1/32
- · Built-in oscilation
- + 2.85 V to + 5 V power supply
- Compliant to RoHS directive 2002/95/EC

ABSOLUTE MAXIMUM RATINGS						
ITEM	SYMBOL	STAN				
	STMBOL	MIN.	TYP.	MAX.	UNIT	
Power Supply	V_{DD} to V_{SS}	- 0.3	-	8.0	v	
Input Voltage	VI	- 0.3	-	V _{DD}	v	

Note

• $V_{SS} = 0 V, V_{DD} = 5.0 V$

ELECTRICAL CHARACTERISTICS							
ITEM	SYMBOL	CONDITION	ST				
	STMBOL	CONDITION	MIN.	TYP.	MAX.	UNIT	
Input Voltage	V _{DD}	V_{DD} = + 3 V ± 5 V	2.7	3.0	3.3	V	
Supply Current	I _{DD}	V _{DD} = + 3 V	-	10	-	mA	
	V_{DD} to V_0	- 20 °C	5.9	6.2	6.5	V	
Recommended LC Driving Voltage for Normal Temperature Version Module		0 °C	5.7	6.0	6.3		
		25 °C	4.6	4.7	4.8		
		50 °C	4.3	4.4	4.5		
		70 °C	3.3	3.4	3.5		
LED Forward Voltage	V _F	25 °C	1.7	-	2.5	V	
LED Forward Current	١ _F	25 °C	-	-	200	mA	
EL Power Supply Current	I _{EL}	V _{EL} = 110 V _{AC} , 400 Hz	-	-	5.0	mA	

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

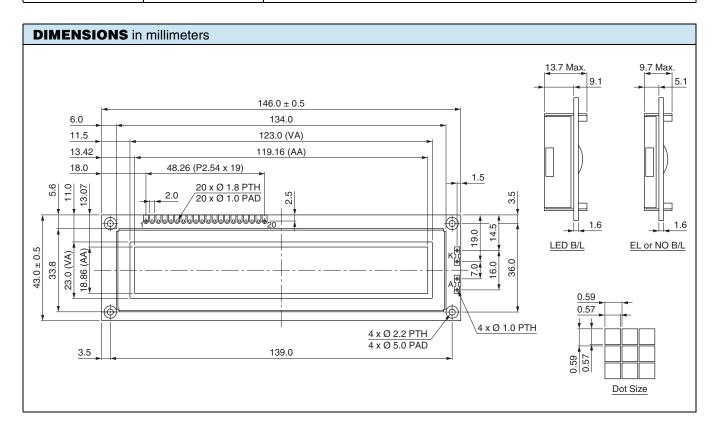
For detailed information, please see the "Product Numbering System" document.

Document Number: 37366 Revision: 31-Mar-09

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INTERFACE PIN FUNCTION					
PIN NO.	SYMBOL	FUNCTION			
1	V _{SS}	Ground			
2	V _{DD}	Power supply (+ 3 V, + 5 V)			
3	Vo	Contrast adjustment			
4	A ₀	H: D0 to D7 are display data/L: D0 to D7 are display control data			
5	R/W	WR for 80 serial R/W for 68 serial			
6	CS1	Enable chip 1			
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	V _{EE}	Negative voltage output			
16	RESET	Reset signal			
17	A	+ 4.2 V for LED, $R_A = 0 \Omega$			
18	К	Power supply for B/L (0 V)			
19	CS2	Enable chip 2			
20	CS3	Enable chip 3			





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