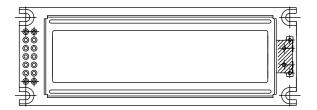




144 x 32 Graphic LCD



FEATURES

• Type: Graphic

Display format: 144 x 32 dotsBuilt-in controller: (ST7920)

Duty cycle: 1/32+ 5 V power supply

• LED can be driven by pin 15, pin 16 or A, K

· Chinese version

• Same size with LCD-016N002D series

• Compliant to RoHS directive 2002/95/EC

MECHANICAL DATA				
ITEM	STANDARD VALUE	UNIT		
Module Dimension	85.0 x 30.0 x 13.2			
Viewing Area	66.0 x 16.0			
Dot Size	0.38 x 0.38	mm		
Dot Pitch	0.42 x 0.42	mm -		
Mounting Hole	N/a			
Character Size	N/a			

ABSOLUTE MAXIMUM RATINGS						
ITEM	SYMBOL	STAN	UNIT			
IIEW	SYMBOL	MIN.	TYP.	MAX.	UNIT	
Power Supply	V_{DD} to V_{SS}	4.75	5.0	5.25	V	
Input Voltage	VI	0	-	V_{DD}	ľ	

Note

• $V_{SS} = 0 \text{ V}, V_{DD} = 5.0 \text{ V}$

ELECTRICAL CHARACTERISTICS						
ITEM	SYMBOL	CONDITION	ST	STANDARD VALUE		
		CONDITION	MIN.	TYP.	MAX.	UNIT
Input Voltage	V_{DD}	-	4.5	5.0	5.5	V
Supply Current	I _{DD}	V _{DD} = + 5 V	-	1.2	1.5	mA
Recommended LC Driving	V _{DD} to V ₀	- 20 °C	-	-	6.0	V
Voltage for Normal Temperature		25 °C	-	4.7	-	
Version Module		70 °C	4.0	-	-	
CCFL Starting Voltage	V _{FLS}	25 °C	-	-	-	
CCFL Starting Voltage	V_{FLD}	25 °C	-	-	-	
CCFL Starting Voltage	I _{FLD}	$V_{FQ} = 450 V_{RMS}$, 30 kHz	-	-	-	
LED Forward Voltage	V _F	25 °C	-	4.0	4.3	V
LED Forward Current - Array	I _F	25 °C	-	130	260	A
LED Forward Current - Edge	I _{EF}	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
	х	Х	х	Х		х	х	х	

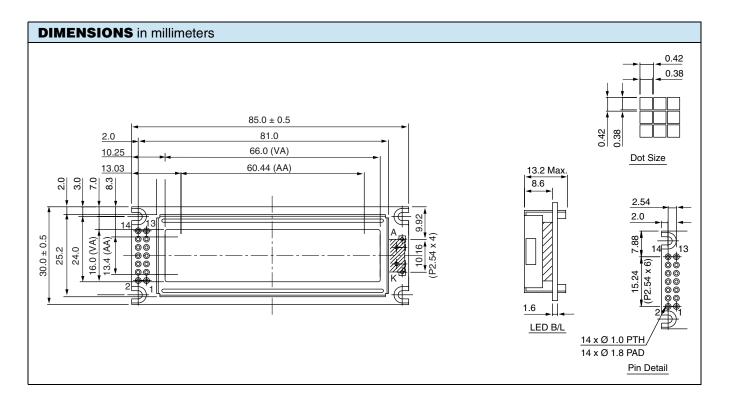
For detailed information, please see the "Product Numbering System" document.

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144 x 32 Graphic LCD



INTERFACE PIN FUNCTION					
PIN NO.	SYMBOL	FUNCTION			
1	V _{DD}	Supply voltage for logic			
2	V _{SS}	Ground			
3	V ₀	NC			
4	RS	Register select signal			
5	R/W	H/L read/write signal			
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			





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