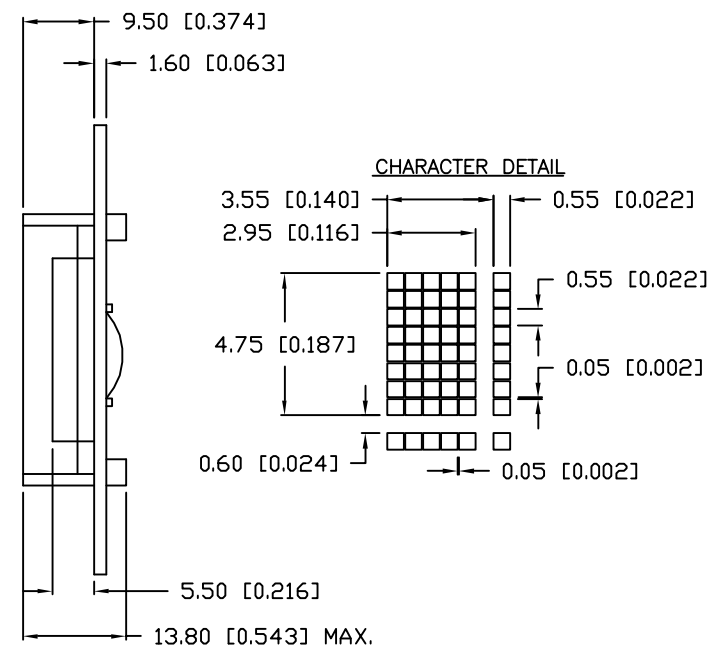
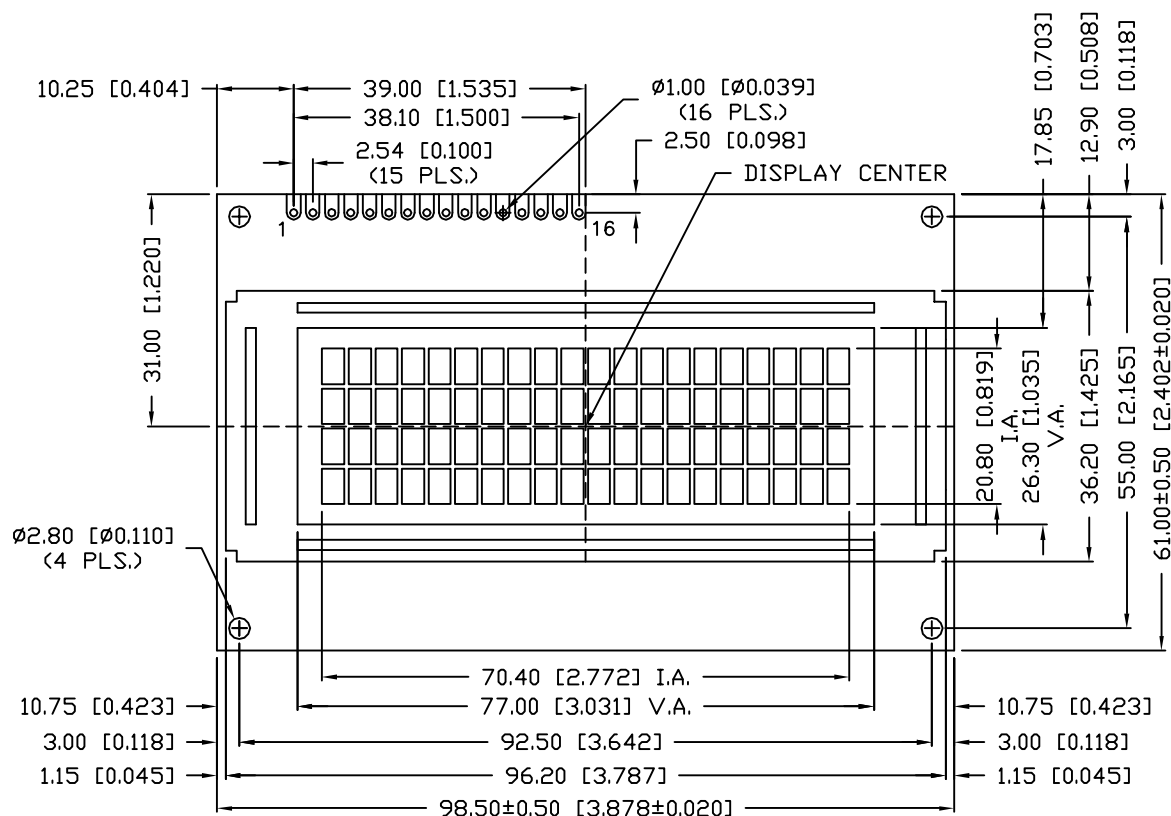


UNCONTROLLED DOCUMENT

PART NUMBER
LCM-S02004DSF-1YJNREV.
A

REV.	E.C.N. NUMBER AND REVISION COMMENTS	DATE
A	E.C.N. #11566.	4.24.09

CAUTION: STATIC SENSITIVE DEVICE
FOLLOW PROPER E.S.D. HANDLING PROCEDURES
WHEN WORKING WITH THIS PART.



*UNLESS OTHERWISE SPECIFIED TOLERANCES PER DECIMAL PRECISION ARE: X=±1 (±0.039), X.X=±0.5 (±0.020), X.XX=±0.25 (±0.010), X.XXX=±0.127 (±0.005). LEAD SIZE=±0.05 (±0.002), LEAD LENGTH=±0.75 (±0.030). MIN.= +DECIMAL PRECISION -0.00 MAX.= +0.00 -DECIMAL PRECISION

REV. A PART NUMBER LCM-S02004DSF-1YJN

4.75mm CHARACTER HEIGHT, 5 x 8 DOT MATRIX, 20 x 4 LCD
MODULE, 12:00 VIEW, 1/16 DUTY, 1/5 BIAS, STN YELLOW.

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RELIABILITY NOTE
OUR MANY YEARS OF EXPERIENCE DATA ACCUMULATION INDICATE THAT SOLDER HEAT IS A MAJOR CAUSE OF EARLY AND FUTURE FAILURE. PLEASE PAY ATTENTION TO YOUR SOLDERING PROCESS.

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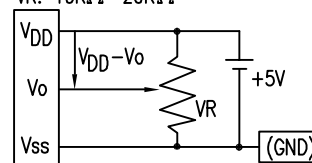
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			PAGE: 1 OF 2
			SCALE: N/A

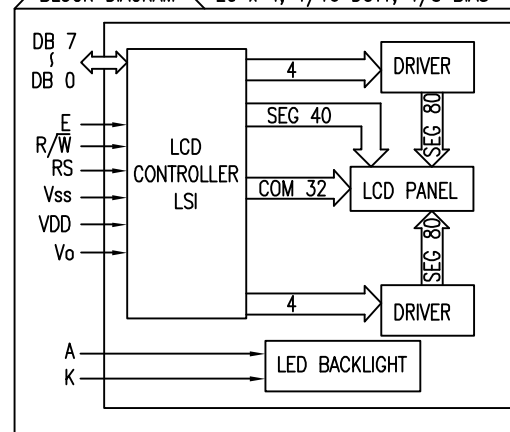
PIN CONFIGURATION

PIN NO.	SYMBOL	LEVEL	FUNCTION	
1	V _{SS}	—	POWER SUPPLY	GND (0V)
2	V _{DD}	—		5V
3	V _O	—		FOR LCD DRIVE
4	RS	H/L	REGISTER SELECT SIGNAL H: DATA INPUT L: INSTRUCTION INPUT	
5	R/ $\overline{W}$	H/L	H: DATA READ (MODULE $\rightarrow$ MPU) L: DATA WRITE (MODULE $\leftarrow$ MPU)	
6	E	H,H $\rightarrow$ L	ENABLE	
7~14	DB0~DB7	H/L	DATA BUS—SOFTWARE SELECTABLE 4 OR 8 BIT MODE.	
15	A	—	ANODE	LED BACKLIGHT
16	K	—	CATHODE	LED BACKLIGHT

VDD-Vo: LCD DRIVING VOLTAGE
VR: 10KΩ-20KΩ



BLOCK DIAGRAM 20 x 4, 1/16 DUTY, 1/5 BIAS



NOTES:

1. R1=R2=R4=R5=R7=1kΩ.

ELECTRICAL CHARACTERISTICS

VDD=4.7V to 5.3V, TA=25°C

ITEM		SYMBOL	CONDITION	STANDARD VALUE			UNIT	
				MIN.	TYP.	MAX.		
SUPPLY VOLTAGE FOR LOGIC		V _{DD} -V _{SS}	—	—	5.0	—	V	
SUPPLY CURRENT FOR LOGIC		I _{DD}	V _{DD} =5V	—	2.0	3.0	mA	
INPUT VOLTAGE	HIGH	V _{IH}	—	2.2	—	V _{DD}	V	
	LOW	V _{IL}	—	0	—	0.6	V	
OUTPUT VOLTAGE	HIGH	V _{OH}	I _{OH} =-0.205mA	2.4	—	—	V	
	LOW	V _{OL}	I _{OL} =1.6ma	—	—	0.4	V	
LED BACKLIGHT	VOLTAGE		V _f	I _f =300mA	—	4.2	4.5	V
	CURRENT		I _f	—	—	300	600	mA
	POWER CONSUMPTION		P _D	—	—	1260	—	mW
	LUMINOUS		L	I _f =300mA	70	—	—	cd/m ²
	COLOR		—	—	—	—	—	nm

ABSOLUTE MAXIMUM RATINGS

ITEM	SYMBOL	TEST CONDITION	STANDARD VALUE		UNIT
SUPPLY VOLTAGE FOR LOGIC	VDD-Vss	Ta=25°C	4.7	5.3	V
SUPPLY VOLTAGE FOR LCD DRIVE	VDD-Vo	-	4.2@50°C	4.8@0°C	V
INPUT VOLTAGE	VI	Ta=25°C	Vss	VDD	V
OPERATING TEMPERATURE	Topr	LCM-S	0	50	°C
STORAGE TEMPERATURE	Tstg	LCM-S	-20	70	°C

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REV.

A

PART NUMBER

LCM-S02004DSF-1YJN

4.75mm CHARACTER HEIGHT, 5 x 8 DOT MATRIX, 20 x 4 LCD
MODULE, 12:00 VIEW, 1/16 DUTY, 1/5 BIAS, STN YELLOW.

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