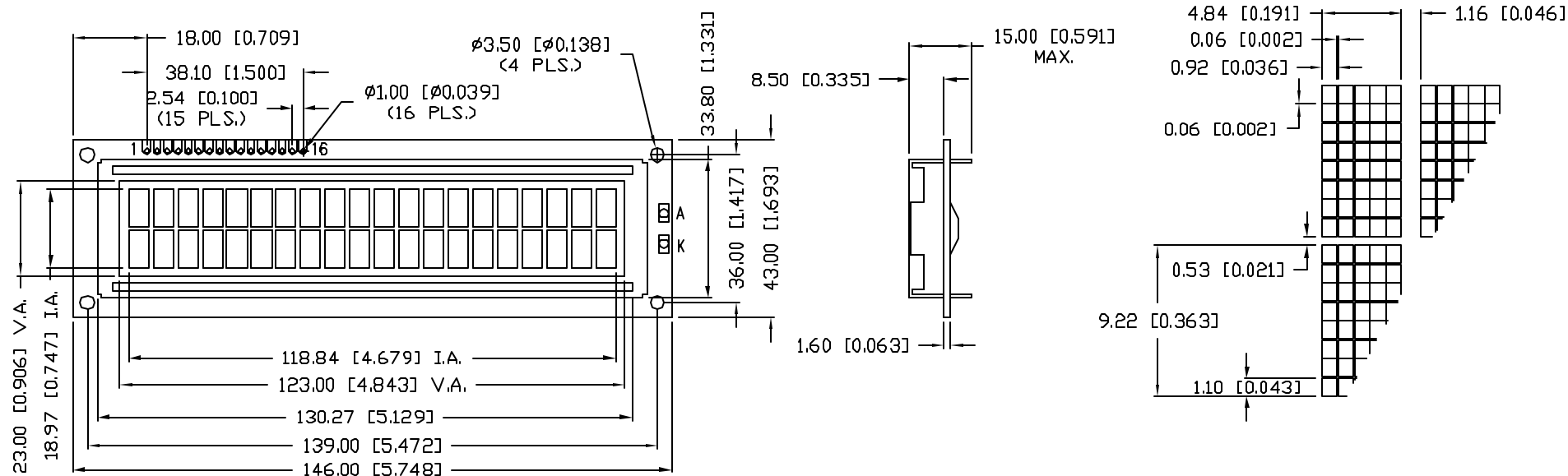


CAUTION: STATIC SENSITIVE DEVICE
FOLLOW PROPER E.S.D. HANDLING PROCEDURES
WHEN WORKING WITH THIS PART.



*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 MAX.=+0.00 -0.00 DECIMAL PRECISION

REV.

PART NUMBER

LCM-S02002DSF/D-Y

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9.22mm CHARACTER HEIGHT, 20 X 2 CHARACTERS,
5 X 8 DOT MATRIX, LCD MODULE,
STN YELLOW, LED BACKLIGHT, 1/16 DUTY, 1/5 BIAS.

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.

DRAWN BY:

GT

CHECKED BY:

APPROVED BY:

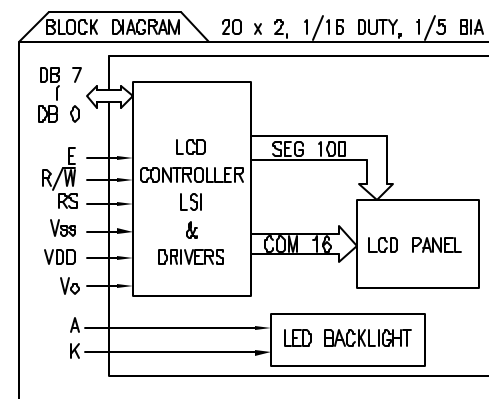
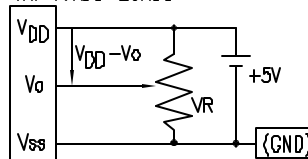
DATE: 2.19.02

PAGE: 1 OF 2

SCALE: N/A

PIN CONFIGURATION				
PIN NO.	SYMBOL	LEVEL	FUNCTION	
1	V _{SS}	-	POWER SUPPLY	GND (DV)
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/W	H/L	H: DATA READ (MODULE-->MPU) L: DATA WRITE (MODULE<--MPU)	
6	E	H,H->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

V_{DD}-V_O: LCD DRIVING VOLTAGE
VR: 10K Ω -20K Ω



ELECTRICAL CHARACTERISTICS			V _{DD} =4.7V to 5.3V, T _A =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	—	4.7	V	
	LOW	V _{IL}	—	0	—	0.6	V	
OUTPUT VOLTAGE	HIGH	V _{OH}	—	2.4	—	—	V	
	LOW	V _{OL}	—	—	—	0.4	V	
*LED BACKLIGHT	VOLTAGE		V _F	I _F =220mA	—	4.2	4.6	V
	CURRENT		I _F	—	—	220	480	mA
	POWER CONSUMPTION		P _D	—	—	924	—	mW
	LUMINOUS		L	I _F =220mA	70	—	—	cd/m ²
	COLOR		—	—	—	—	—	nm

ABSOLUTE MAXIMUM RATINGS

ITEM	SYMBOL	TEST CONDITION	STANDARD VALUE		UNIT
			MIN	MAX	
SUPPLY VOLTAGE FOR LOGIC	V _{DD} -V _{SS}	T _a =25°C	4.7	5.3	V
SUPPLY VOLTAGE FOR LCD DRIVE	V _{DD} -V _O	-	4.2V@50°C	4.8V@0°C	V
INPUT VOLTAGE	V _I	T _a =25°C	V _{SS}	V _{DD}	V
OPERATING TEMPERATURE	T _{opr}	LCM-S	0	50	°C
STORAGE TEMPERATURE	T _{stg}	LCM-S	-20	70	°C

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REV.

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