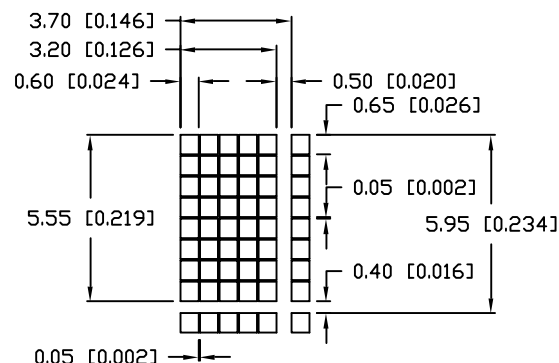
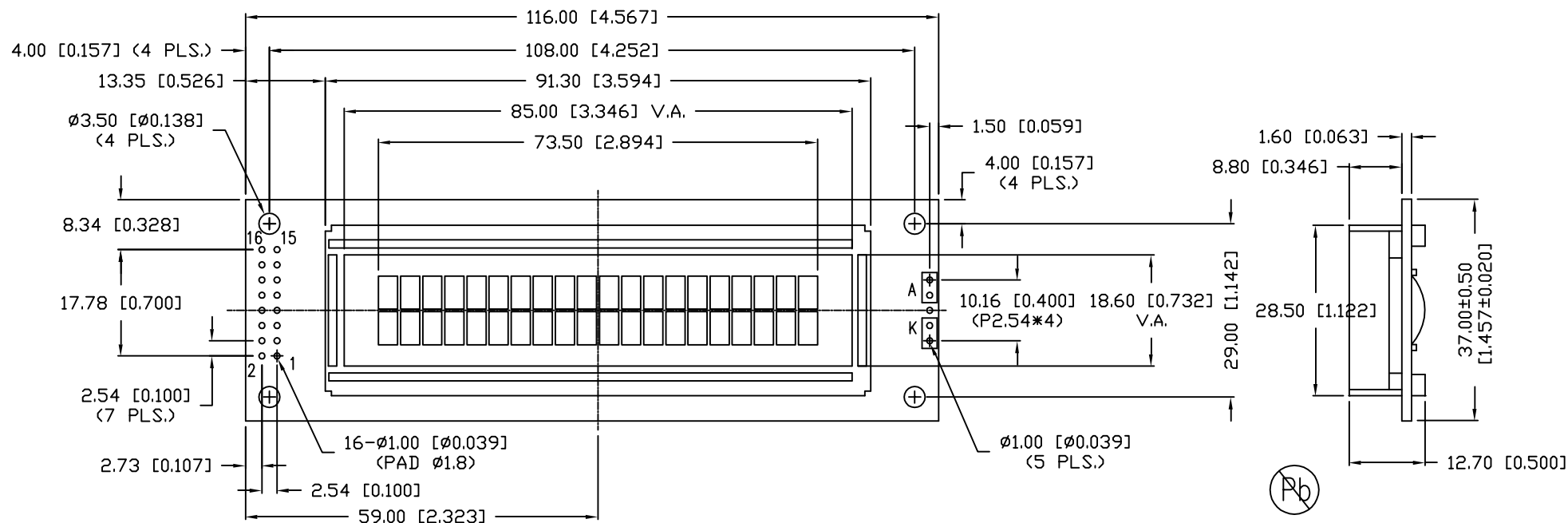


CHARACTER DETAIL



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

UNCONTROLLED DOCUMENT

REV.

PART NUMBER

LCM-S02002DLN-W

20 x 2 CHARACTER MODULE, 5 x 8 DOT MATRIX, 3.3V
STN BLUE, TRANSMISSIVE NEGATIVE, WHITE LED BACKLIGHT,
0°C TO 50°C OPERATING TEMPERATURE, 6:00 VIEW.

CONFIDENTIAL INFORMATION

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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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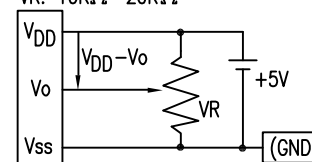
DATE: 9.20.07

PAGE: 1 OF 2

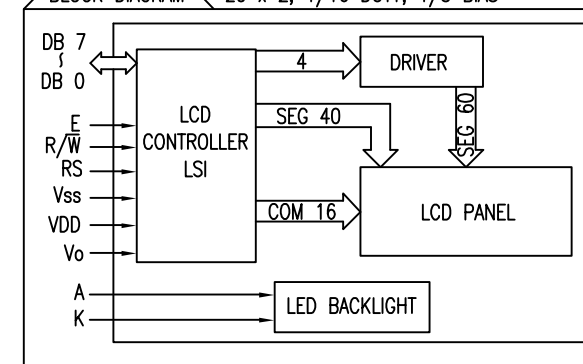
SCALE: N/A

PIN CONFIGURATION				
PIN NO.	SYMBOL	LEVEL	FUNCTION	
1	V _{SS}	-	POWER SUPPLY	GND (0V)
2	V _{DD}	-		3.3V
3	V _O	-		FOR LCD DRIVE
4	RS	H/L	REGISTER SELECT SIGNAL H: DATA INPUT L: INSTRUCTION INPUT	
5	R/ $\bar{W}$	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	3.4V	ANODE	LED BACKLIGHT
16	K	GND	CATHODE	LED BACKLIGHT

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



BLOCK DIAGRAM 20 x 2, 1/16 DUTY, 1/5 BIAS



ELECTRICAL CHARACTERISTICS		V _{DD} =2.7V to 4.5V, T _A =25°C				
ITEM	SYMBOL	CONDITION	STANDARD VALUE			UNIT
SUPPLY VOLTAGE FOR LOGIC	V _{DD} -V _{SS}	-	-	3.3	-	V
SUPPLY CURRENT FOR LOGIC	I _{DD}	V _{DD} =5V	-	2.0	3.0	mA
INPUT VOLTAGE	HIGH	V _{IH}	-	0.7V _{DD}	-	V
	LOW	V _{IL}	-	-0.3	0.55	V
OUTPUT VOLTAGE	HIGH	V _{OH}	-	0.75V _{DD}	-	V
	LOW	V _{OL}	-	-	0.2V _{DD}	V
LED BACKLIGHT	VOLTAGE	V _f	I _f =40mA	-	3.4	V
	CURRENT	I _f	-	-	40	mA
	POWER CONSUMPTION	PD	-	-	136	mW
	LUMINOUS	L	I _f =40mA	60	100	cd/m ²
	COLOR	-	-	-	WHITE	-

ABSOLUTE MAXIMUM RATINGS

ITEM	SYMBOL	TEST CONDITION	STANDARD VALUE		UNIT
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	-	2.2@50°C	4.3@0°C	V
INPUT VOLTAGE	V _I	T _a =25°C	V _{SS}	V _{DD}	V
OPERATING TEMPERATURE	T _{opr}	-	0	50	°C
STORAGE TEMPERATURE	T _{stg}	-	-20	70	°C

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