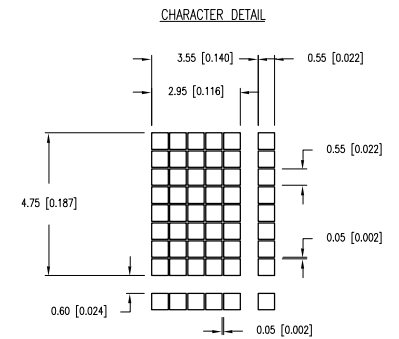
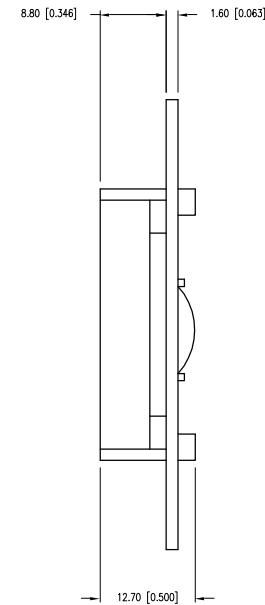
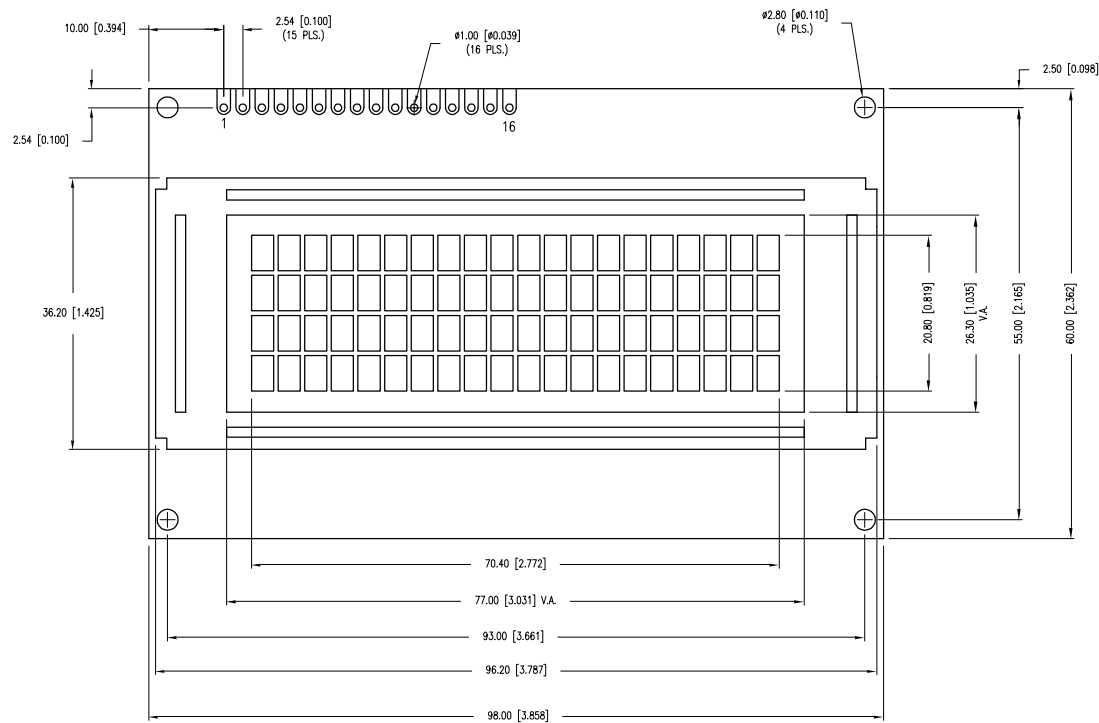


CAUTION: STATIC SENSITIVE DEVICE
FOLLOW PROPER E.S.D. HANDLING PROCEDURES
WHEN WORKING WITH THIS PART.



*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



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4.75mm CHARACTER HEIGHT, 5 x 8 DOT MATRIX, 20 x 4 LCD, MODULE, 6:00 VIEW, 1/16 DUTY, 1/5 BIAS.

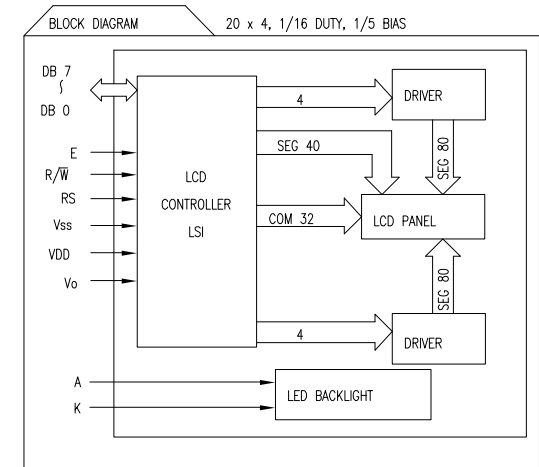
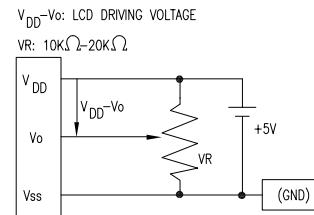
THE SPECIFICATIONS MAY CHANGE AT ANY TIME WITHOUT NOTICE DUE TO NEW MATERIALS OR PRODUCT IMPROVEMENT.

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DATE:	06.01.10	DRAWN BY:	JH
PAGE:	1 OF 2	CHKD BY:	BC
SCALE:	N/A	APRVD BY:	KF
UNIT:	mm [INCH]		(R)

PIN CONFIGURATION				
PIN NO.	SYMBOL	LEVEL	FUNCTION	
1	V _{SS}	-	POWER SUPPLY	
2	V _{DD}	-		GND (0V)
3	V _O	-		5V 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	-	ANODE	
16	K	-	CATHODE	



ELECTRICAL CHARACTERISTICS		V _{DD} =4.7V to 5.3V, T _A =25°C		STANDARD VALUE			UNIT
ITEM	SYMBOL	CONDITION	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}	
	LOW	V _{IL}	-	0	-	0.6	
OUTPUT VOLTAGE	HIGH	V _{OH}	I _{OH} =-0.205mA	2.4	-	V	
	LOW	V _{OL}	I _{OL} =1.6mA	-	-	0.4	
*LED BACKLIGHT	VOLTAGE	V _f	I _f =300mA	-	4.2	4.5	
	CURRENT	I _f	-	-	300	600	
	POWER CONSUMPTION	PD	-	-	1260	-	
	LUMINOUS	L	I _f =300mA	70	-	-	
	COLOR	-	-	-	-	-	

*ONLY APPLIES TO MODULES WITH BACKLIGHT

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	-	4.2@50°C	4.8@0°C	V
INPUT VOLTAGE	V _I	T _a =25°C	V _{SS}	V _{DD}	V
OPERATING TEMPERATURE	T _{opr}	LCM-H	-20	70	°C
STORAGE TEMPERATURE	T _{stg}	LCM-H	-30	80	°C

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4.75mm CHARACTER HEIGHT, 5 x 8 DOT MATRIX, 20 x 4 LCD, MODULE, 6:00 VIEW, 1/16 DUTY, 1/5 BIAS.

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