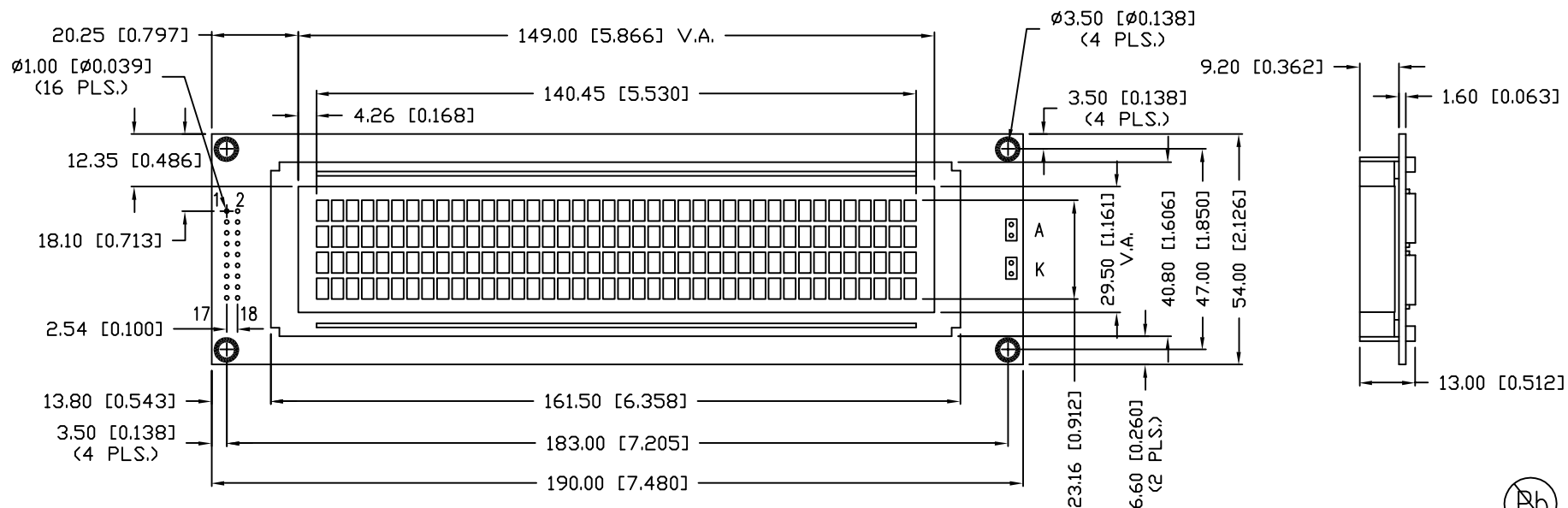
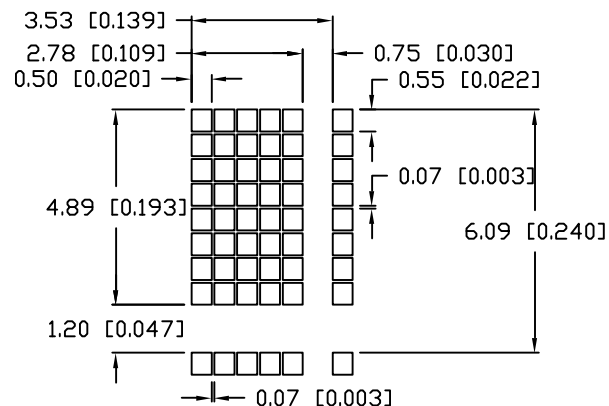


CHARACTER DETAIL

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



UNCONTROLLED DOCUMENT

*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.=+0.00 PRECISION MAX.=+0.00 PRECISION
-0.00 -0.00

REV.

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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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4.89mm CHARACTER HEIGHT, 5 x 8 DOT MATRIX,
STN, WIDE OPERATING TEMPERATURE,
40 x LCD CHARACTER MODULE, 1/16 DUTY, 1/5 BIAS.

DRAWN BY:

SA/BC

CHECKED BY:

APPROVED BY:

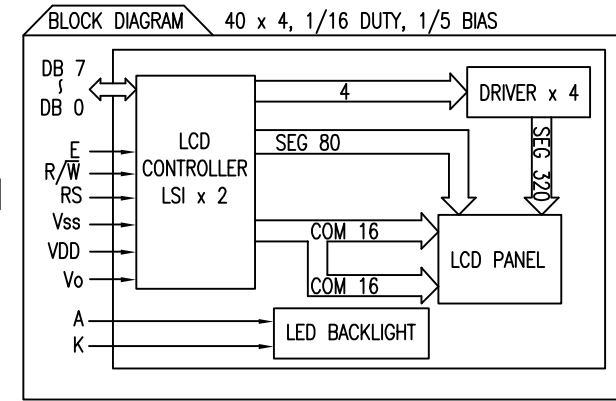
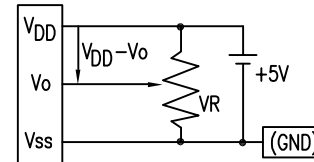
DATE: 9.14.07

PAGE: 1 OF 2

SCALE: N/A

PIN CONFIGURATION				
PIN NO.	SYMBOL	LEVEL	FUNCTION	
1~8	DB0~DB7	H/L	DATA BUS—SOFTWARE SELECTABLE 4 OR 8 BIT MODE.	
9	E1	H,H→L	ENABLE 1	
10	R/W	H/L	H: DATA READ (MODULE→MPU) L: DATA WRITE (MODULE←MPU)	
11	RS	H/L	REGISTER SELECT SIGNAL H: DATA INPUT L: INSTRUCTION INPUT	
12	Vo	—	POWER SUPPLY	FOR LCD DRIVE
13	Vss	—		GND (0V)
14	VDD	—		5V
15	E2	H,H→L	ENABLE 2	
16	—	—	NO CONNECTION	
17	A	—	ANODE FOR BACKLIGHT	
18	K	—	CATHODE FOR BACKLIGHT	

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



ELECTRICAL CHARACTERISTICS			$V_{DD}=4.7V$ to $5.3V$, $T_A=25^{\circ}C$					
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}	$V_{DD}=5V$	—	4.0	10.0	mA
INPUT VOLTAGE		HIGH	V_{IH}	—	2.2	—	V_{DD}	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	—	—	4.1	4.6	V
	CURRENT		I_f	—	—	600	—	mA
	POWER CONSUMPTION		PD	—	—	4140	—	mW
	LUMINOUS		L	$I_f=600mA$	80	120	—	cd/m ²
	COLOR		—	—	—	565	—	nm

ABSOLUTE MAXIMUM RATINGS					
ITEM	SYMBOL	TEST CONDITION	STANDARD VALUE		UNIT
			MIN	MAX	
SUPPLY VOLTAGE FOR LOGIC	$V_{DD}-V_{ss}$	$T_a=25^\circ C$	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	$T_a=25^\circ C$	V_{ss}	V_{DD}	V
OPERATING TEMPERATURE	T_{opr}		-20	70	°C
STORAGE TEMPERATURE	T_{stg}		-30	85	°C

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