

UNCONTROLLED DOCUMENT

SC:1

PART NUMBER

REV.

LCM-S01602DTR/C-3

A

REV. E.C.N. NUMBER AND REVISION COMMENTS

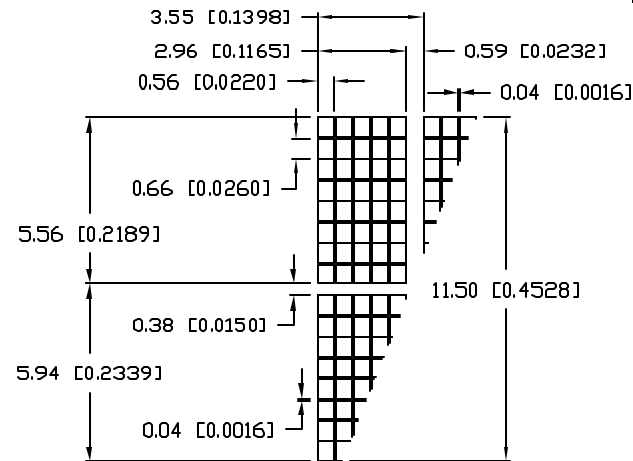
DATE

A E.C.N. #10956.

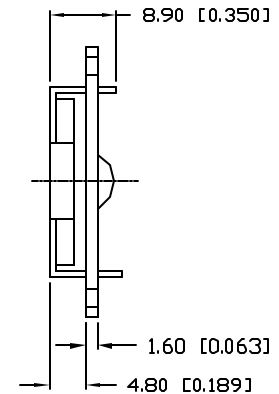
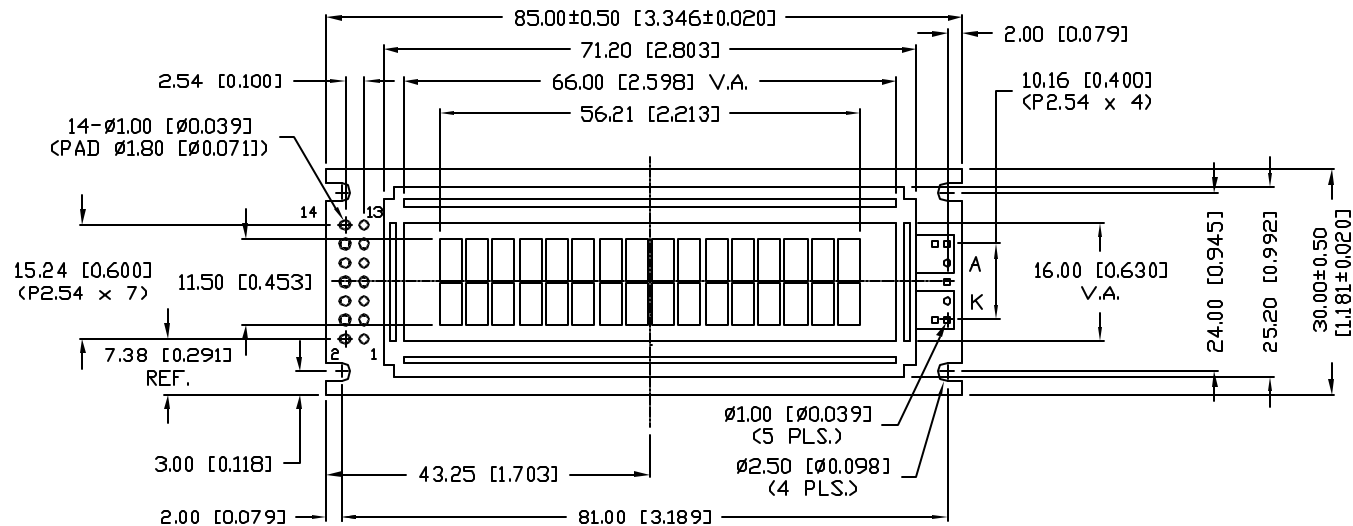
2.21.03

UNDER REVISION

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), XX=±0.5 (±0.020), XXX=±0.25 (±0.010), XXXX=±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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LCM-S01602DTR/C-3

5.56mm CHARACTER HEIGHT, 5 X 8 DOT MATRIX, TN, 3.3V,
REFLECTIVE, 16 X 2 LCD MODULE, 1/16 DUTY, 1/5 BIAS.

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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PAGE: 1 OF 2

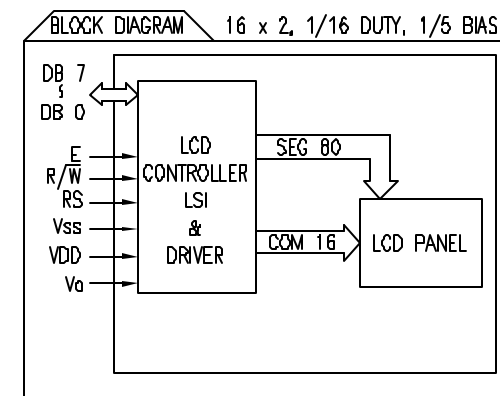
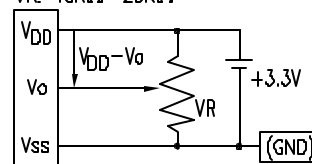
SCALE: N/A

CT

UNDER REVISION

PIN CONFIGURATION					
PIN NO.	SYMBOL	LEVEL	FUNCTION		
1	V_{DD}	-	POWER SUPPLY	3.3V	
2	V_{SS}	-		GND (0V)	
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.		
	A	-	ANODE	LED BACKLIGHT	
	K	-	CATHODE	LED BACKLIGHT	

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



ELECTRICAL CHARACTERISTICS			$V_{DD}=2.7V$ to $4.5V$, $T_A=25^{\circ}C$					
ITEM			SYMBOL	CONDITION	STANDARD VALUE			UNIT
					MIN.	TYP.	MAX.	
SUPPLY VOLTAGE FOR LOGIC			$V_{DD}-V_{SS}$	—	—	3.3	—	V
SUPPLY CURRENT FOR LOGIC			I_{DD}	$V_{DD}=3.3V$	—	2.0	3.0	mA
INPUT VOLTAGE	HIGH	V_{IH}	—	$0.7V_{DD}$	—	V_{DD}	V	
	LOW	V_{IL}	—	—0.3	—	0.55	V	
OUTPUT VOLTAGE	HIGH	V_{OH}	—	$.75V_{DD}$	—	—	V	
	LOW	V_{OL}	—	—	—	$0.2V_{DD}$	V	
*LED BACKLIGHT	VOLTAGE		V_f	$I_f=160mA$	—	4.2	4.6	V
	CURRENT		I_f	—	—	160	—	mA
	POWER CONSUMPTION		P_D	—	—	656	—	mW
	LUMINOUS		L	$I_f=160mA$	70	—	—	cd/m ²
	COLOR		—	—	—	—	—	nm

*ONLY APPLIES TO MODULES WITH BACKLIGHT

ABSOLUTE MAXIMUM RATINGS

ITEM	SYMBOL	TEST CONDITION	STANDARD VALUE		UNIT
			MIN	MAX	
SUPPLY VOLTAGE FOR LOGIC	$V_{DD}-V_{SS}$	$T_a=25^\circ C$	2.7	4.5	V
SUPPLY VOLTAGE FOR LCD DRIVE	$V_{DD}-V_o$	-	2.2@50°C	4.3@0°C	V
INPUT VOLTAGE	V_i	$T_a=25^\circ C$	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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