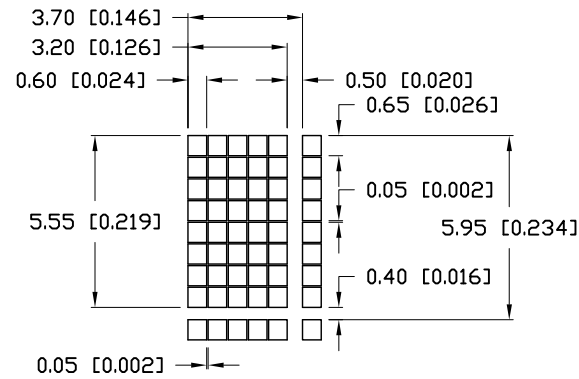


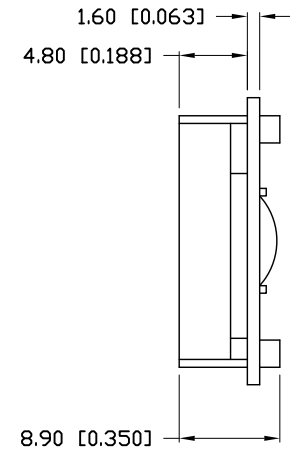
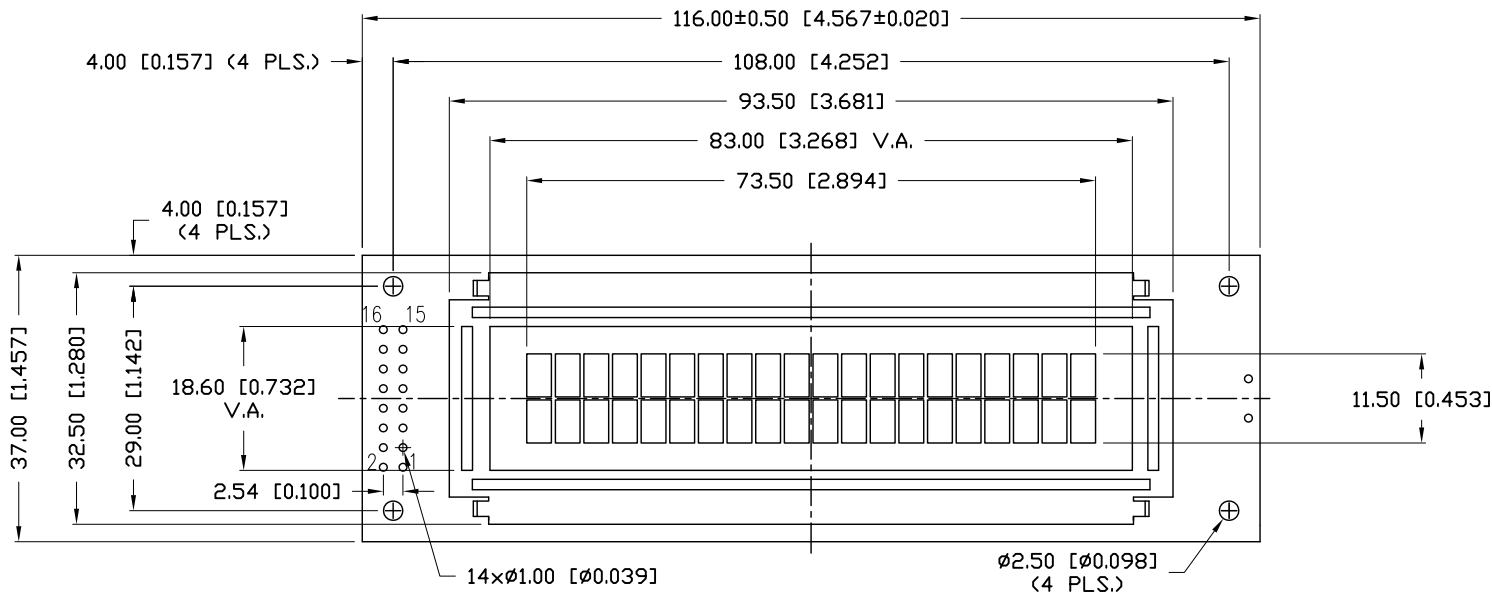
PART NUMBER	LCM-S02002DTR	REV.	A
DATE	E.C.N. NUMBER AND REVISION COMMENTS		REV.
02.19.13	E.C.N. #10BRDR. & REDRAWN.		A

A

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 MAX.= +0.00 -DECIMAL PRECISION UNCONTROLLED DOCUMENT



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5.55mm CHARACTER HEIGHT, 5 x 8 DOT MATRIX, 20 x 2 LCD MODULE, 1/16 DUTY, 1/5 BIAS, TN REFLECTIVE.

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

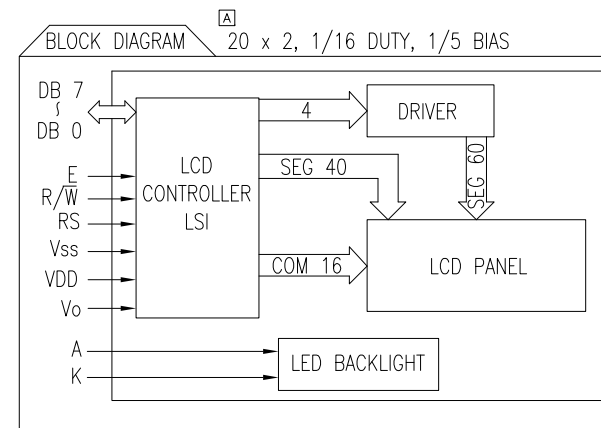
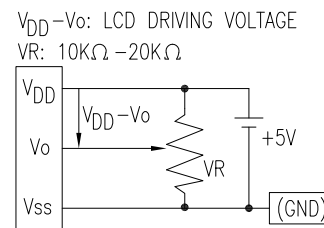
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DATE:	02.19.13	DRAWN BY:	MA
PAGE:	1 OF 2	CHKD BY:	SS
SCALE:	NTS	APRVD BY:	SS
UNIT:	mm [INCH]		(Pb)

PART NUMBER	LCM-S02002DTR	REV.	A
DATE	E.C.N. NUMBER AND REVISION COMMENTS		REV.
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A

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



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	-	V _{DD}
	LOW	V _{IL}	-	0	-	0.6
OUTPUT VOLTAGE	HIGH	V _{OH}	-	2.4	-	-
	LOW	V _{OL}	-	-	-	0.4
*LED BACKLIGHT	VOLTAGE	V _f	I _f =210mA	-	4.2	4.6
	CURRENT	I _f	-	-	210	-
	POWER CONSUMPTION	P _D	-	-	882	-
	LUMINOUS	L	I _f =210mA	70	-	-
	COLOR	-	-	-	-	-

ABSOLUTE MAXIMUM RATINGS		^A				
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}	-	0	50	°C	
STORAGE TEMPERATURE	T _{stg}	-	-20	70	°C	

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