

UNCONTROLLED DOCUMENT

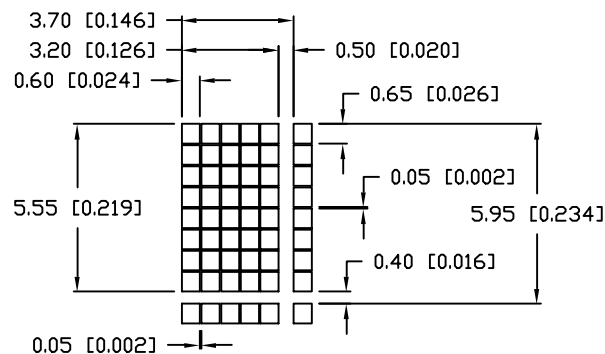
PART NUMBER
LCM-S02402DSM

REV.

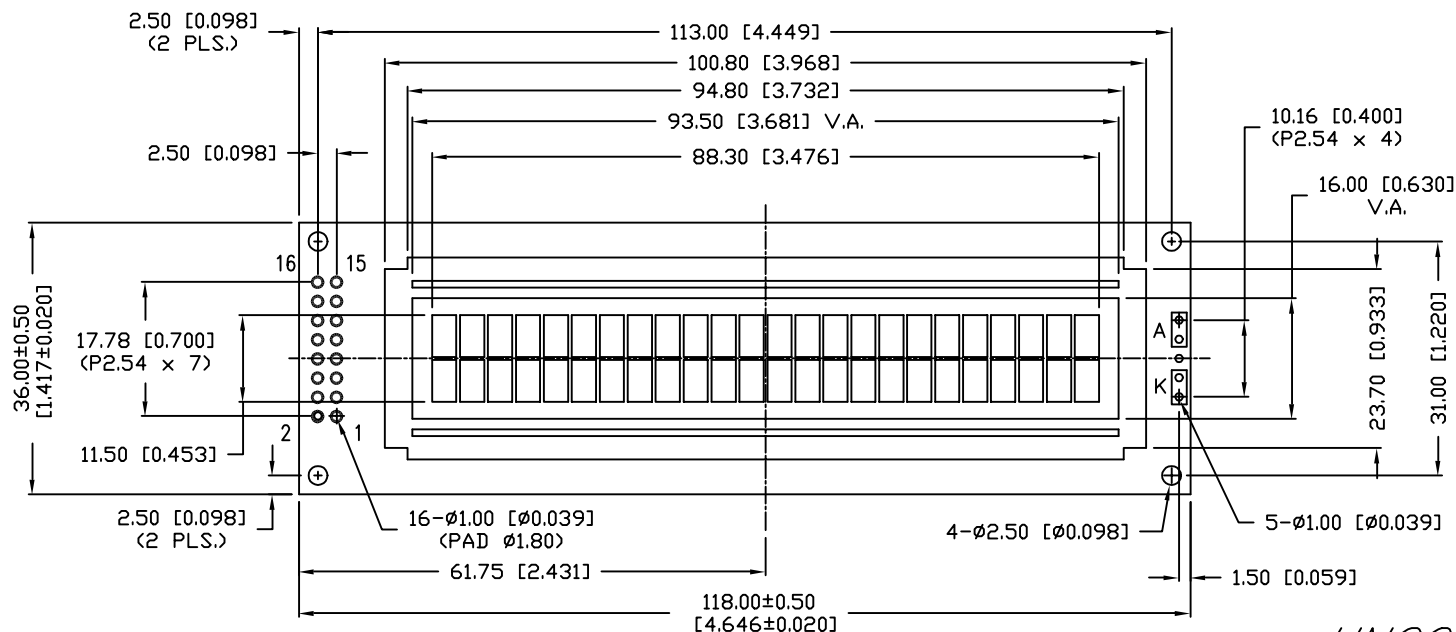
REV. E.C.N. NUMBER AND REVISION COMMENTS

DATE

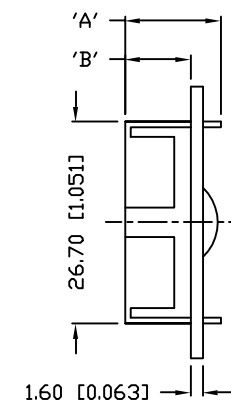
CHARACTER DETAIL



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



TYPE	DIM.	A	B
WITH BACKLIGHT		12.7	8.7
NO BACKLIGHT		8.8	4.8



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*UNLESS OTHERWISE SPECIFIED TOLERANCE IS $\pm 0.25\text{mm}$ ($\pm 0.010''$)

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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.

LUMEX
INCORPORATED

290 E. HELLEN ROAD
PALATINE, ILLINOIS 60067
PHONE: 1-847-359-2790
WEB: HTTP://WWW.LUMEX.COM

DRAWN BY:

CHECKED BY:

APPROVED BY:

DATE: 8-18-98

SA/BC

PAGE: 1 OF 2

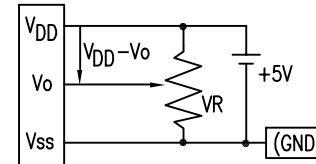
SCALE: N/A

5.55mm CHARACTER HEIGHT, 5 x 8 DOT MATRIX,
24 x 2 CHARACTER LCD MODULE,
STN, TRANSMISSIVE, 1/16 DUTY.

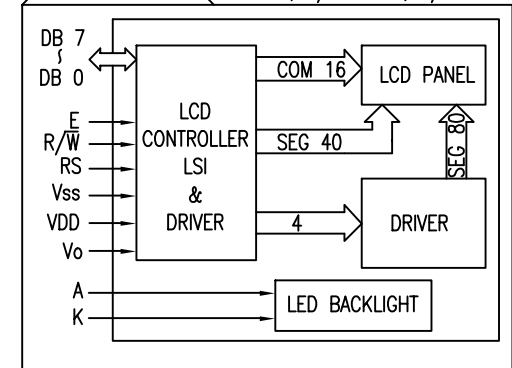
PIN CONFIGURATION

PIN NO.	SYMBOL	LEVEL	FUNCTION	
1	V _{SS}	-	POWER SUPPLY	GND (0V)
2	V _{DD}	-		5V
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.	
15	A	-	ANODE	LED BACKLIGHT
16	K	-	CATHODE	LED BACKLIGHT

V_{DD}-V_O: LCD DRIVING VOLTAGE
VR: 10KΩ-20KΩ



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



ELECTRICAL CHARACTERISTICS

V_{DD}=4.5V to 5.5V, T_A=25°C

ITEM	SYMBOL	CONDITION	STANDARD VALUE			UNIT	APPLICABLE TERMINAL
			MIN.	TYP.	MAX.		
SUPPLY VOLTAGE FOR LOGIC	V _{DD} -V _{SS}	-	4.7	5.0	5.3	V	V _{DD}
SUPPLY CURRENT FOR LOGIC	I _{DD}	V _{DD} =5V	-	2.5	5.0	mA	V _{DD}
INPUT VOLTAGE	HIGH	V _{IH}	2.2	-	V _{DD}	V	RS,R/W,E
	LOW	V _{IL}	0	-	0.6	V	DB0~DB7
OUTPUT VOLTAGE	HIGH	V _{OH}	2.4	-	-	V	DB0~DB7
	LOW	V _{OL}	-	-	0.4	V	RS,R/W,E
*LED BACKLIGHT	VOLTAGE	V _f	-	4.2	4.5	V	-
	CURRENT	I _f	-	160	400	mA	-
	POWER CONSUMPTION	PD	-	660	-	mW	-
	LUMINOUS	L	70	-	-	cd/m ²	-
	COLOR	-	-	-	-	nm	-

ABSOLUTE MAXIMUM RATINGS

ITEM	SYMBOL	TEST CONDITION	STANDARD VALUE		UNIT
SUPPLY VOLTAGE FOR LOGIC	V _{DD} -V _{SS}	T _a =25°C	4.5	5.5	V
SUPPLY VOLTAGE FOR LCD DRIVE	V _{DD} -V _O	T _a =25°C	4.2	4.8	V
INPUT VOLTAGE	V _r	T _a =25°C	V _{SS}	V _{DD}	V
OPERATING TEMPERATURE	T _{opr}	LCM-S	0	50	°C
STORAGE TEMPERATURE	T _{stg}	LCM-S	-20	70	°C

*ONLY APPLIES TO MODULES WITH BACKLIGHT

*UNLESS OTHERWISE SPECIFIED TOLERANCE IS ±0.25mm (±0.010")

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