

UNCONTROLLED DOCUMENT

PART NUMBER
LCM-X01602DXX/I

REV.

A

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

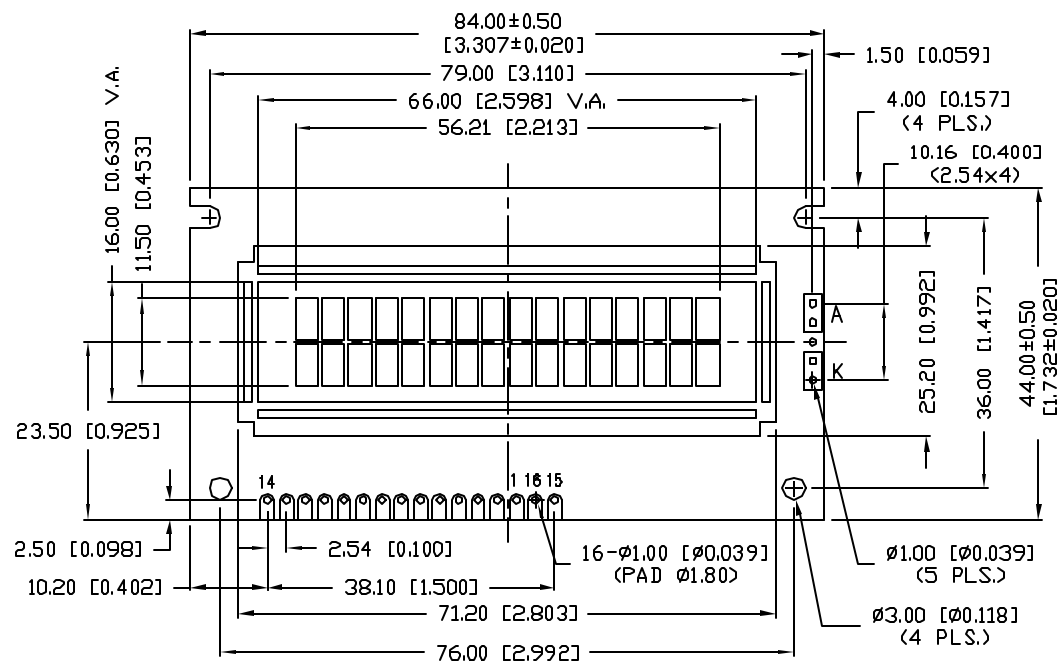
DATE

A E.C.N. #10464./

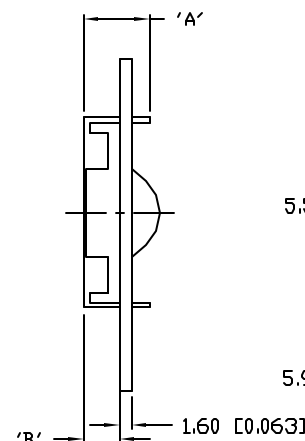
10-9-98

P/N PREFIX/SUFFIX TABLE

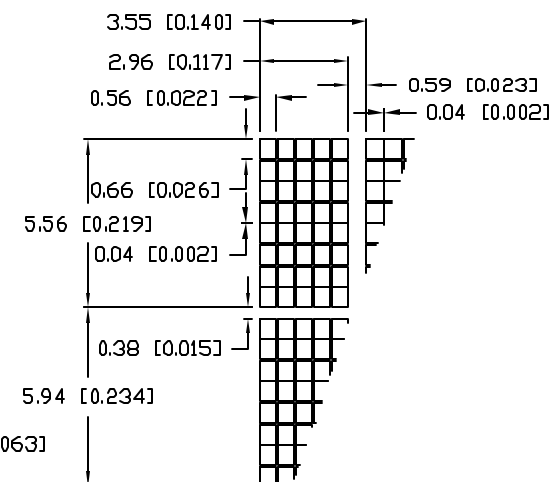
LCM-X	DX	DESCRIPTION
STANDARD	S	SR STN, REFLECTIVE
	SF	SF STN, TRANSFLECTIVE(W/ BACKLIGHT)
HIGH TEMP.	H	TR TN, REFLECTIVE
	TF	TF TN, TRANSFLECTIVE(W/ BACKLIGHT)



TYPE	DIM.	A	B
WITH BACKLIGHT		12.7	8.8
NO BACKLIGHT		8.9	4.8



CHARACTER DETAIL



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

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*UNLESS OTHERWISE SPECIFIED TOLERANCE IS ±0.25mm (±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.

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5.56mm CHARACTER HEIGHT, 16 x 2 CHARACTERS,
5 x 8 DOT MATRIX, LCD MODULE,
1/16 DUTY, 1/5 BIAS.

DRAWN BY:

CHECKED BY:

APPROVED BY:

DATE: 8-14-98

SA/BC

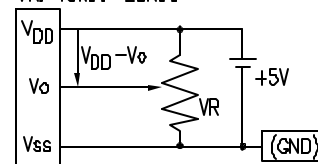
PAGE: 1 OF 2

SCALE: N/A

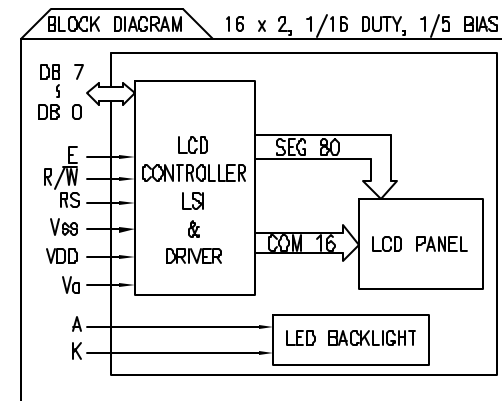
PIN CONFIGURATION

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
V_R: 10KΩ-20KΩ



A



ELECTRICAL CHARACTERISTICS

A 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	-	4.7	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	$I_f=160mA$	-	4.2	4.5	V
	CURRENT		I_f	-	-	160	400	mA
	POWER CONSUMPTION		PD	-	-	660	-	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
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-S	0	50	°C
		LCM-H	-20	70	°C
STORAGE TEMPERATURE	T _{stg}	LCM-S	-20	70	°C
		LCM-H	-30	85	°C

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SA/BC

AMEYA360

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