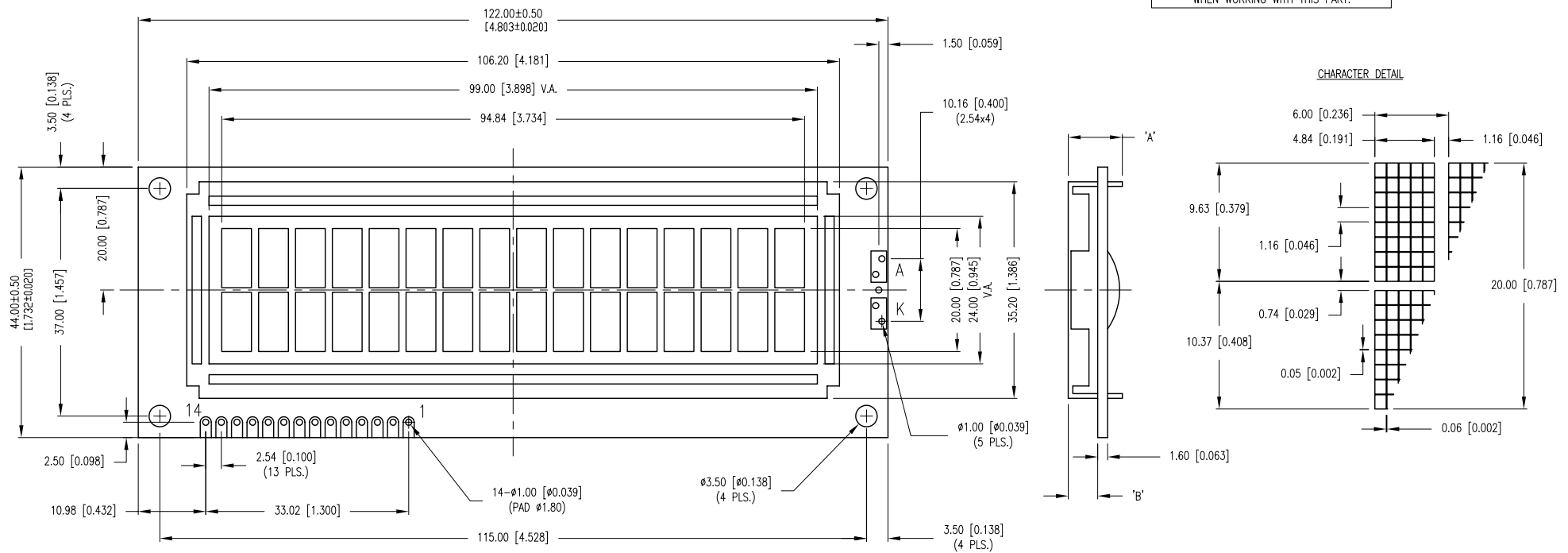


PART NUMBER	LCM-X01602DXX/D	REV.	A
DATE	E.C.N. NUMBER AND REVISION COMMENTS		REV.
10.09.98	E.C.N. #10464.		A

P/N PREFIX/SUFFIX TABLE		
LCM-X	DXX	DESCRIPTION
STANDARD	SR	STN, REFLECTIVE
	SF	STN, TRANSFLECTIVE(W/ BACKLIGHT)
	TR	TN, REFLECTIVE
HIGH TEMP.	TF	TN, TRANSFLECTIVE(W/ BACKLIGHT)

TYPE	DIM.	A	B
WITH BACKLIGHT	13.0	9.0	
NO BACKLIGHT	8.8	4.8	

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.= -DECIMAL PRECISION

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9.63mm CHARACTER HEIGHT, 16x2 CHARACTERS, 5x8 DOT MATRIX LCD MODULE, 1/16 DUTY, 1/5 BIAS.

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

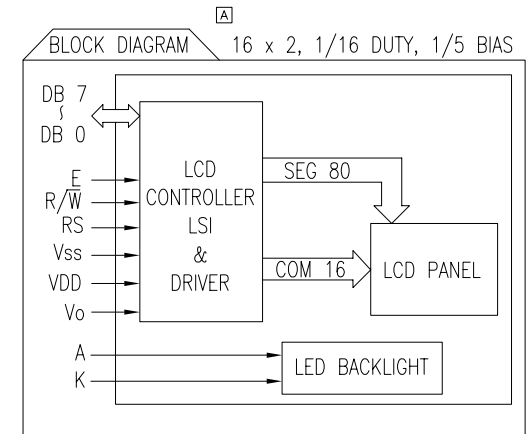
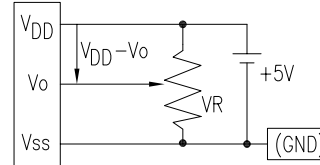
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DATE:	01.28.11	DRAWN BY:	AB
PAGE:	1 OF 2	CHKD BY:	YA
SCALE:	NTS	APRVD BY:	BC
UNIT:	mm [INCH]		Ⓢ

PART NUMBER	LCM-X01602DXX/D	REV.	A
DATE	E.C.N. NUMBER AND REVISION COMMENTS		REV.
10.09.98	E.C.N. #10464.		A

PIN CONFIGURATION			
PIN NO.	SYMBOL	LEVEL	FUNCTION
1	V _{SS}	—	POWER SUPPLY GND (0V)
2	V _{DD}	—	
3	V _O	—	
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



ELECTRICAL CHARACTERISTICS		[A] V _{DD} =4.7V to 5.3V, T _A =25°C					
ITEM	SYMBOL	CONDITION	STANDARD VALUE			UNIT	
SUPPLY VOLTAGE FOR LOGIC	V _{DD} -V _{SS}	—	MIN.	TYP.	MAX.		
SUPPLY CURRENT FOR LOGIC	I _{DD}	V _{DD} =5V	—	5.0	—	V	
INPUT VOLTAGE	HIGH	V _{IH}	—	2.2	—	V	
	LOW	V _{IL}	—	0	—	V	
OUTPUT VOLTAGE	HIGH	V _{OH}	—	2.4	—	V	
	LOW	V _{OL}	—	—	0.4	V	
*LED BACKLIGHT	VOLTAGE	V _f	I _f =220mA	—	4.2	4.6	V
	CURRENT	I _f	—	—	220	480	mA
	POWER CONSUMPTION	PD	—	—	924	—	mW
	LUMINOUS	L	I _f =220mA	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	—	4.2V@50°C	4.8@0°C	V
INPUT VOLTAGE	V _r	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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