## UNCONTROLLED DOCUMENT

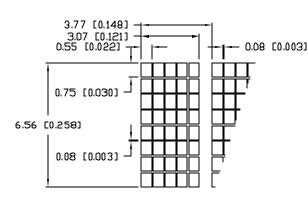
PART NUMBER
LCM-X01601DXX

REV.

REV.	E.C.N. NUMBER AND REVISION COMMENTS	DATE
Α	E.C.N. #10464./	10-9-98

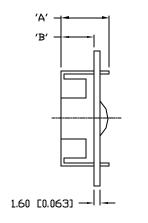
P/N PREFIX/SUFFIX TABLE							
LCM-	-X	DXX	DESCRIPTION				
STANDARD	s		STN, REFLECTIVE				
SIANDARD	3	SF	STN, TRANSFLECTIVE(W/ BACKLIGHT)				
HIGH TEMP.	Н	TR	TN, REFLECTIVE				
I HIGH TEMP.		TF	TN, TRANSFLECTIVE(W/ BACKLIGHT)				

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



CHARACTER DETAIL

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



2.50 [0.098] (4 PLS.)	75.00 [2.953]	
8.00 [0.315]	38.10 [1.500]	
Ø2.50 [Ø0.098]	16-ø1.00 [ø0.039] (PAD ø1.80[ø0.071]) 2.00 [0.079]	1,40 [0,055] ø1,00 [ø0,039] / (5 PLS.>
<del> </del>		(3 1 23/2
		/
36.00±0.50 [1.417±0.020] — 25.20 [0.992]		/
16,00 E0.6301	59.62 [2.347] ————————————————————————————————————	2.50 [0.098] _ (4 PLS.)

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

PART NUMBER

A LCM-X01601DXX

6.56mm CHARACTER HEIGHT, 5 x 8 DOT MATRIX,

16 x 1 CHARACTER LCD MODULE, 1/16 DUTY, 1/5 BIAS.

CONFDENTIAL NFORMATION

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RELIABILITY NOTE
OUR MANY YEARS OF EXPERIENCE DATA ACCUMULATION INDICATE
THAT SOLDER HEAT IS A MAJOR GAUSE OF EARLY AND FUTURE
FAILURE. PLEASE PAY ATTENTION TO YOUR SOLDIERING PROCESS.

LUME X

SA/BC

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SCALE:

N/A

DRAWN BY: CHECKED BY: APPROVED BY: DATE: 8-21-98
PAGE: 1 OF 2

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	PART NUMBER		REV.
	LCM-X01601DXX		А
REV.	E.C.N. NUMBER AND REVISION COMMENTS	D/	ATE
	SEE PAGE #1./		

′		CONFIGUR	
N	NO.	SYMBOL	LEV

	\					
PIN NO.	SYMBOL	LEVEL	FUNCTION			
1	Vss	-		GND (OV)		
2	V <sub>DD</sub>	-	POWER SUPPLY	5V		
3	Vo	-		FOR LCD DRIVE		
			REGISTER SELECT SIG	NAL		
4	RS	RS H/L	H: DATA INPUT			
			L: INSTRUCTION INPU	Т		
5	5 R/W		H; DATA READ (MODULE>MPU)			
5	rt/ w	H/L	L: DATA WRITE (MODULE <mpu)< td=""></mpu)<>			
6	E	H,H->L	ENABLE			
7~14	DB0~DB7	H/L	DATA BUS-SOFTWARE	SELECTABLE 4 OR 8 BIT MODE.		
15	Α	-	ANODE	LED BACKLIGHT		
16	K	-	CATHODE	LED BACKLIGHT		

	Vo: LCD DRIVING VOLTAGE ΙΟΚΩ –20ΚΩ
V <sub>DD</sub>	V <sub>DD</sub> -V <sub>0</sub>
Vo	+5V
Vss	VR (CND)

DB 7 COM 8
RS LCD PANEL LSI
A LED BACKLIGHT

Vnn=4.7V to 5.3V. Ta=25°C

7 ELESTRICAL CONTROLLERS 103 100 1001, 14-200								
ПЕМ	EM		SYMBOL	CONDITION	STANDARD VALUE			UNIT
				MIN.	TYP.	MAX.	LINII	
SUPPLY VOLTAGE FOR LOGIC			$V_{ m DD}$ - $V_{ m SS}$	1	1	5.0	-	٧
SUPPLY CURRENT FOR LOGIC			DD	V <sub>DD</sub> =5V	1	1.6	2.5	mA
HIGH		٧ <sub>IH</sub>	1	2.2	1	٧ <sub>DD</sub>	٧	
INPUT VOLT	AGE	LOW	$V_{IL}$	1	0	1	0.6	٧
	HIGH		V <sub>OH</sub>	I	2.4	1	1	٧
OUTPUT VOLTAGE LO		LOW	V <sub>OL</sub>	1	1	1	0.4	٧
	VOLTAGE		Vf	lf=150mA	1	4.2	4.6	٧
*LED	CURRENT		If	1	1	150	200	mΑ
BACKLIGHT	POWER CU	POWER CUNSUMPTION		1	_	630	_	mW
DACKLIGHT	LUMINOUS		Ĺ	lf=150mA	70	_	_	cd/m <sup>2</sup>
	COLOR		_	=	_	_	_	пm

## ABSOLUTE MAXIMUM RATINGS

/	\					
ПЕМ	SYMBOL	TEST	STANDARD VALUE			
TIEW .	JINIDOL	CONDITION	I MIN MAX		UNIT	
SUPPLY VOLTAGE FOR LOGIC	VDD-Vss	Ta=25°C	4.7	5.3	>	
SUPPLY VOLTAGE FOR LCD DRIVE	VDD-Vo	-	4.2⊜50°€	4.8 <b>@</b> 0°C	٧	
INPUT VOLTAGE	۷ <sub>I</sub>	Ta=25°C	Vss	Λ <sup>DD</sup>	٧	
OPERATING TEMPERATURE	Topr	LCM-S	0	50	.c	
OPERATING TEMPERATURE	торі	LCM-H	-20	70	င္	
STORAGE TEMPERATURE	Tota	LCM-S	-20	70	့	
STORAGE TEMPERATURE	Tstg	LCM-H	-30	<b>8</b> 5	Ċ	

\*ONLY APPLIES TO MODULES WITH BACKLIGHT

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REV. PART NUMBER LCM-X01601DXX

> 6.56mm CHARACTER HEIGHT, 5 x 8 DOT MATRIX, 16 x 1 LCD MODULE, 1/16 DUTY, 1/5 BIAS.

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SA/BC

CHECKED BY: APPROVED BY: DATE: 8-21-98

PAGE: 2 OF 2 SCALE: N/A