

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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## UNCONTROLLED DOCUMENT

PART NUMBER LCM-X01602DXX/B

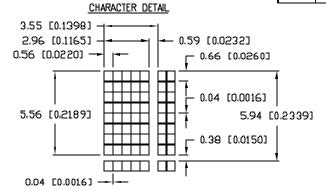
> DATE 9 - 3 - 98

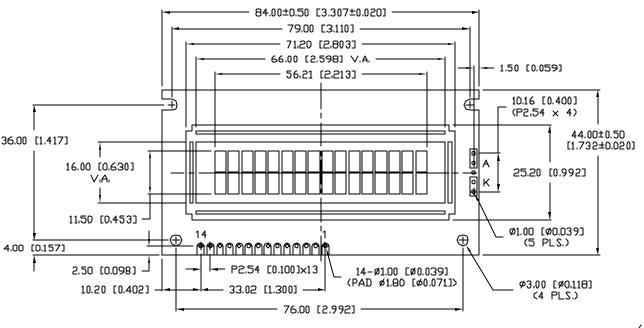
REV.

E.C.N. NUMBER AND REVISION COMMENTS E.C.N. #10BRDR. & REDRAWN.

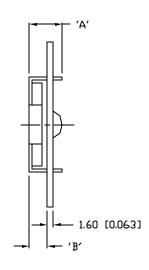
P/N PREFIX/SUFFIX TABLE						
LCM-X		DXX	DESCRIPTION			
STANDARD	S	SR	STN, REFLECTIVE			
SIANDARD		SF	STN, TRANSFLECTIVE(W/ BACKLIGHT)			
HIGH TEMP.	Η	TR	TN, REFLECTIVE			
HIGH IEMF.		TF	TN, TRANSFLECTIVE(W/ BACKLIGHT)			

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





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



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

REV. PART NUMBER LCM-X01602DXX/B

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

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RELIABILITY NOTE DUR 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. INCORPORATED

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

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SA/BC

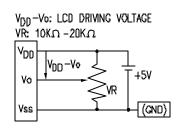
CHECKED BY: APPROVED BY: DATE: 4-28-98 PAGE: 1 OF 2

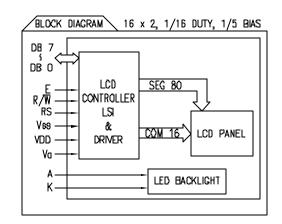
> SCALE: N/A

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	PART NUMBER		REV.
	LCM-X01602DXX/B		А
REV.	E.C.N. NUMBER AND REVISION COMMENTS	DATE	
	SEE PAGE #1./		

		\					
PIN NO.	SYMBOL	LEVEL	FUNCTION				
1	Vss	-		GND (OV)			
2	$v_{\mathrm{DD}}$	-	POWER SUPPLY	5V			
3	Vo	1		FOR LCD DRIVE			
			REGISTER SELECT SIGNAL				
4	RS	H/L	H: DATA INPUT				
			L: INSTRUCTION INPUT				
5 R/W		₩ H/L	H; DATA READ (MODU	ILE>MPU)			
			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.			





ELECTRICAL CHARACTERISTICS	V <sub>DD</sub> =4.7V to 5.3V, T <sub>A</sub> =25°C

Total Control of the		CV/VIDOU	COMPETAN	STANDARD VALUE			шит	
ITEM			SYMBOL	CONDITION	MIN.	TYP.	MAX.	UNIT
SUPPLY VOLTAGE FOR LOGIC		$V_{ m DD}$ – $V_{ m SS}$	=	_	5.0	_	٧	
SUPPLY CURRENT FOR LOGIC		<u> </u>	V <sub>DD</sub> =5V	_	2.0	3.0	mΑ	
HIGH		٧H	1	2.2	-	$v_{DD}$	٧	
INPUT VOLT	INPUT VOLTAGE LOW		٧ <sub>IL</sub>	1	0	-	0.6	٧
OUTPUT VOLTAGE HIGH LOW		УOH	I	2.4	-	1	٧	
		LOW	V <sub>O</sub> L	I	_	-	0.4	٧
VOLTAGE			Vf	lf=160mA	_	4.2	4.6	٧
*LED BACKLIGHT	CURRENT		lf	1	_	160	1	mΑ
	POWER CUNSUMPTION		PD	1	_	656	1	mW
	LUMINOUS		Ĺ	lf=160mA	70	_	_	cd/m <sup>2</sup>
	COLOR		_	- 1	_	_	-	ım

\*ONLY APPLIES TO MODULES WITH BACKLIGHT

#### ABSOLUTE MAXIMUM RATINGS

/	\					
ПЕМ	SYMBOL	TEST	STANDAR	D VALUE	UNIT	
TIEW .	JINIDOL	CONDITION	MIN	MAX		
SUPPLY VOLTAGE FOR LOGIC	VDD-Vss	Ta=25°C	4.7	5.3	٧	
SUPPLY VOLTAGE FOR LCD DRIVE	VDD-Vo	-	4.2 <b>9</b> 50°C	4.8@0°C	٧	
INPUT VOLTAGE	٧١	Ta=25°C	Vss	∨ <sup>DD</sup>	٧	
OPERATING TEMPERATURE	T	LCM-S	0	50	.c	
OPERATING TEMPERATURE	Торг	LCM-H	-20	70	့	
STORAGE TEMPERATURE	Tota	LCM-S	-20	70	့	
STORAGE TEMPERATURE	Tstg	LCM-H	-30	<b>8</b> 5	Ċ.	

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A LCM-X01602DXX/B

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PAGE: 2 OF 2

SCALE: N/A