



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!



Contact us

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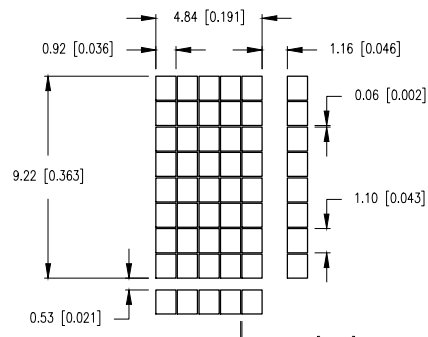
Email & Skype: info@chipsmall.com Web: www.chipsmall.com

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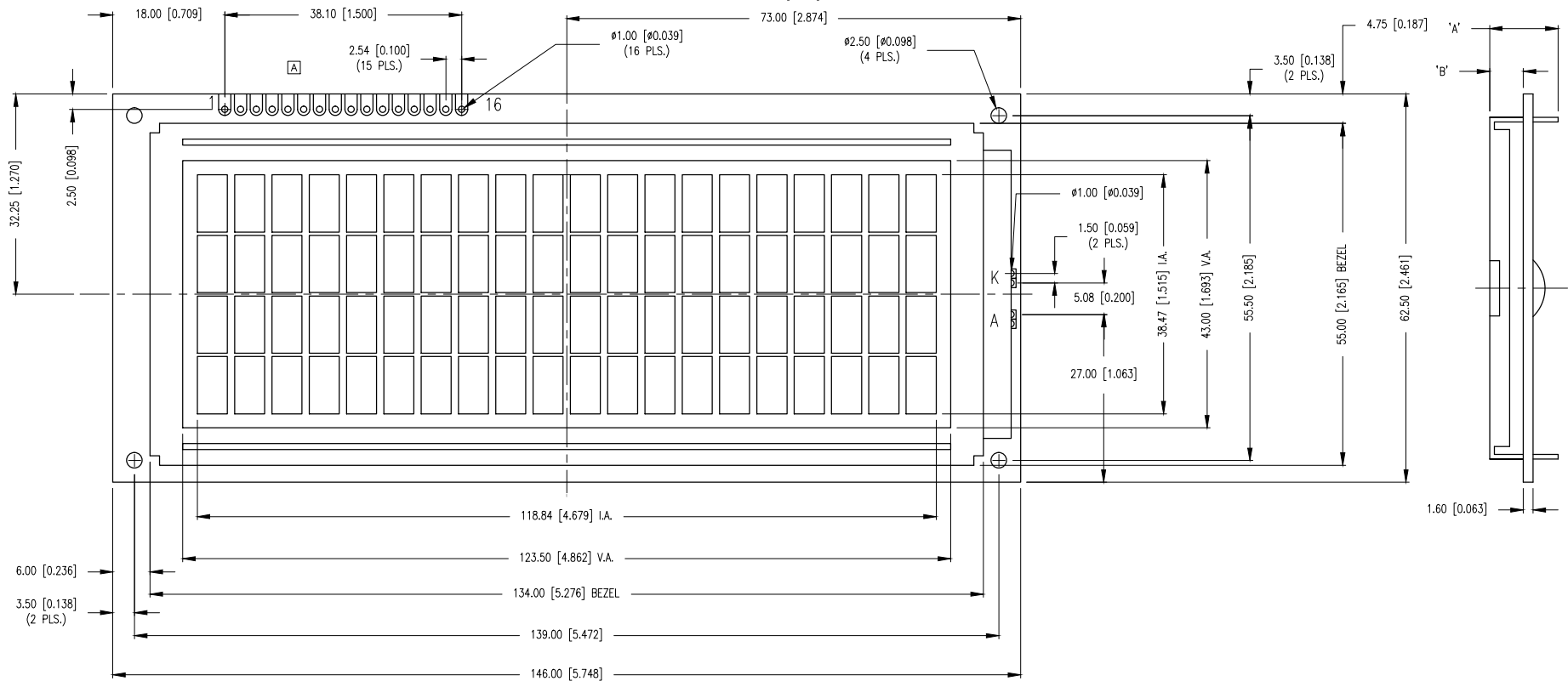


CAUTION: STATIC SENSITIVE DEVICE
FOLLOW PROPER E.S.D. HANDLING PROCEDURES
WHEN WORKING WITH THIS PART.

CHARACTER DETAIL



TYPE	DIM.	A	B
WITH BACKLIGHT	13.0	9.0	
NO BACKLIGHT	11.0	5.4	



*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}_{-0.00} MAX.=^{+0.00}_{-DECIMAL PRECISION} UNCONTROLLED DOCUMENT



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9.22mm CHRCTR HGT, 20 x 4 CHRCTRS, 5x8 DOT MTRX LCD, REFLECTIVE, STN YELLOW, 1/16 DUTY, 1/5 BIAS.

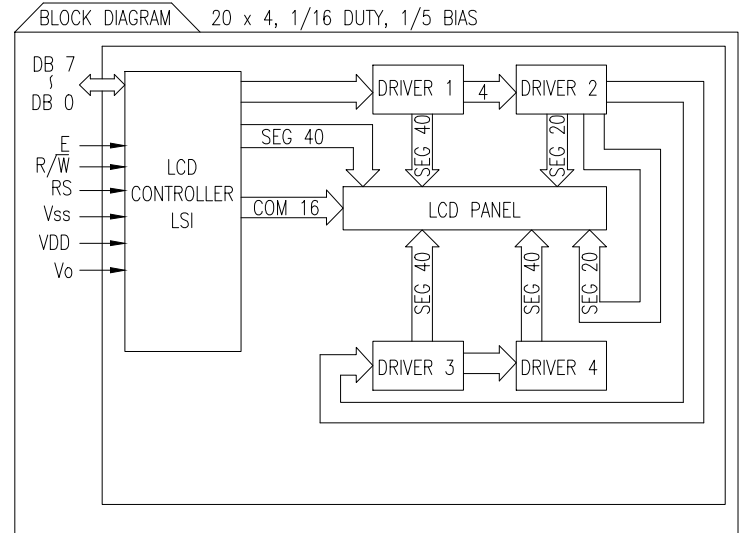
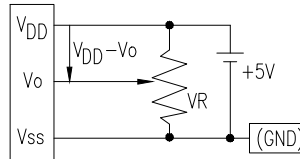
THE SPECIFICATIONS MAY CHANGE AT ANY TIME WITHOUT NOTICE DUE TO NEW MATERIALS OR PRODUCT IMPROVEMENT.

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DATE:	09.28.07	DRAWN BY:	JN
PAGE:	1 OF 3	CHKD BY:	--
SCALE:		APRVD BY:	--
UNIT:	mm [INCH]		(PL)

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/ \bar{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						
16						

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



ELECTRICAL CHARACTERISTICS						
V _{DD} =4.75V to 5.25V, 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	-	1.0	2.2	mA
INPUT VOLTAGE	HIGH	V _{IH}	-	2.2	-	V _{DD}
	LOW	V _{IL}	-	0	-	0.6
OUTPUT VOLTAGE	HIGH	V _{OH}	I _{OH} =-0.205mA	2.4	-	-
	LOW	V _{OL}	I _{OL} =1.6mA	-	-	0.4

DDRAM ADDRESS																				
LINE1:	40	41	42	43	44	45	46	47	48	49	4A	4B	4C	4D	4E	4F	50	51	52	53
LINE2:	00	01	02	03	04	05	06	07	08	09	0A	0B	0C	0D	0E	0F	10	11	12	13
LINE3:	14	15	16	17	18	19	1A	1B	1C	1D	1E	1F	20	21	22	23	24	25	26	27
LINE4:	54	55	56	57	58	59	5A	5B	5C	5D	5E	5F	60	61	62	63	64	65	66	67

ABSOLUTE MAXIMUM RATINGS					
ITEM	SYMBOL	TEST CONDITION	STANDARD VALUE		UNIT
			MIN	MAX	
SUPPLY VOLTAGE FOR LOGIC	V _{DD} -V _{SS}	T _a =25°C	-0.3	7.0	V
SUPPLY VOLTAGE FOR LCD DRIVE	V _{DD} -V _O	-	0	4.9	V
INPUT VOLTAGE	V _I	T _a =25°C	V _{SS}	V _{DD}	V
OPERATING TEMPERATURE	T _{opr}	LCM-H	-20	70	°C
STORAGE TEMPERATURE	T _{stg}	LCM-H	-30	80	°C

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Upper 4 bit Lower 4 bit	LLLL	LLH	LLHL	LLHH	LHLL	LHLH	LHHL	LHHH	HLLL	HLLH	HLHL	HLHH	HHLL	HHLH	HHHL	HHHH
LLLL	士	!	0	1	2	3	4	5	6	7	8	9	A	B	C	D
LLLH	三	!	1	A	Q	5	7	0	2	6	1	7	J	+	X	U
LLHL	7	"	2	B	R	6	r	0	6	0	0	0	0	0	0	0
LLHH	0	#	3	C	S	C	S	0	0	0	0	0	0	0	0	0
LHLL	1	#	4	D	T	d	t	0	0	0	0	0	0	0	0	0
LHLH	1	%	5	E	U	e	u	0	0	0	0	0	0	0	0	0
LHHL	1	&	6	F	V	f	v	0	0	0	0	0	0	0	0	0
LHHH	1	'	7	G	W	g	w	0	0	0	0	0	0	0	0	0
HLLL	1	0	8	H	X	h	x	0	0	0	0	0	0	0	0	0
HLLH	1	9	9	I	Y	i	y	0	0	0	0	0	0	0	0	0
HLHL	0	*	0	J	Z	j	z	0	0	0	0	0	0	0	0	0
HLHH	1	+	0	K	0	k	0	0	0	0	0	0	0	0	0	0
HHLL	=	,	X	L	X	l	x	0	0	0	0	0	0	0	0	0
HHLH	0	-	=	M	0	m	0	0	0	0	0	0	0	0	0	0
HHHL	0	.	X	N	0	n	0	0	0	0	0	0	0	0	0	0
HHHH	0	/	?	0	0	0	0	0	0	0	0	0	0	0	0	0

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