PART NUMBER	LCM-H02002DSF		REV.	A
DATE	E.C.N. NUMBER AND REVISION COMMENTS			REV.
11.16.12	E.C.N. #10BRDR. & REDRAWN.			A

A

PIN CONFIGURATION

PIN NO.	SYMBOL	LEVEL	FUNCTION	
1	Vss	–	POWER SUPPLY	GND (0V)
2	VDD	–		5V
3	Vo	–		FOR LCD DRIVE
4	RS	H/L	REGISTER SELECT SIGNAL H: DATA INPUT L: INSTRUCTION INPUT	
5	R/W̄	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

VDD-Vo: LCD DRIVING VOLTAGE
VR: 10KΩ~20KΩ

BLOCK DIAGRAM   20 x 2, 1/16 DUTY, 1/5 BIAS
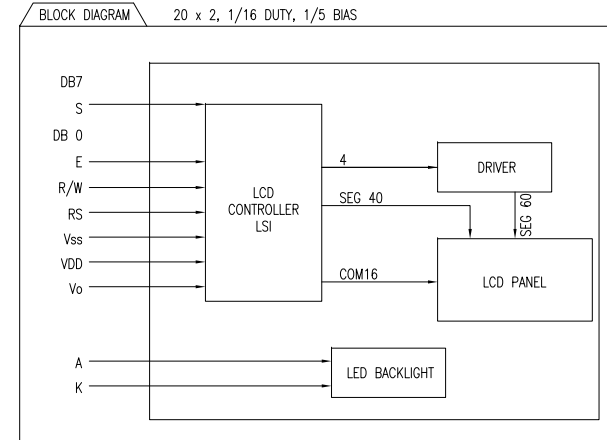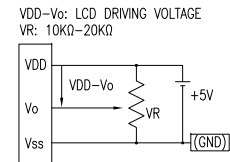
ELECTRICAL CHARACTERISTICS V_{DD}=4.7V to 5.3V, Ta=25°C

ITEM		SYMBOL	CONDITION	STANDARD VALUE			UNIT	APPLICABLE TERMINAL
				MIN	TYP	MAX		
SUPPLY VOLTAGE FOR LOGIC		VDD–Vss	–	–	5.0	–	V	VDD
SUPPLY CURRENT FOR LOGIC		IDD	VDD=5v	–	2.0	3.0	mA	VDD
INPUT VOLTAGE	HIGH	VIH	–	2.2	–	VDD	V	RS,R/W,E
	LOW	VIL	–	0	–	0.6	V	DB0~DB7
OUTPUT VOLTAGE	HIGH	VOH	IOH=–0.205mA	2.4	–	–	V	DB0~DB7
	LOW	VOL	IOL=1.6ma	–	–	0.4	V	RS,R/W,E
LED BACKLIGHT	VOLTAGE	Vf	If=210mA	–	4.2	4.6	V	
	CURRENT	If	–	–	210	275	mA	
	POWER CONSUMPTION	PD	–	–	1279	–	mW	
	LUMINOUS	L	If=210mA	70	–	–	cd/m²	
	COLOR	–	–	–	–	–	nm	

ABSOLUTE MAXIMUM RATINGS

ITEM	SYMBOL	TEST CONDITION	STANDARD VALUE		UNIT
			MIN	MAX	
SUPPLY VOLTAGE FOR LOGIC	VDD–Vss	Ta=25°C	4.7	5.3	V
SUPPLY VOLTAGE FOR LCD DRIVE	VDD	–	4.2@50°C	4.8@0°C	V
INPUT VOLTAGE	Vi	–	Vss	VDD	V
OPERATING TEMPERATURE	Topr	LCM-H	–20	70	°C
STORAGE TEMPERATURE	Tstg	LCM-H	–20	85	°C

*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.= $^{+0.00}_{-DECIMAL\ PRECISION}$

5.55mm CHARACTER HEIGHT, 5 x 8 DOT MATRIX, 20 x 2 CHARACTER LCD MODULE, STN, GREY, TRANSFLECTIVE, 1/16 DUTY, 1/5 BIAS, EXTENDED TEMP.

DATE:	11.16.12	DRAWN BY:	MA
PAGE:	2 OF 2	CHKD BY:	SS
SCALE:	NTS	APRVD BY:	SS
UNIT:	mm [INCH]		Pb

Mouser Electronics

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