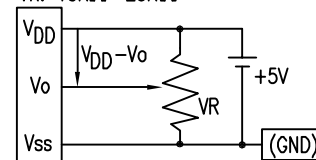


DRAWN BY: JN	CHECKED BY:	APPROVED BY:	DATE: 11.13.09 PAGE: 1 OF 2 SCALE: N/A
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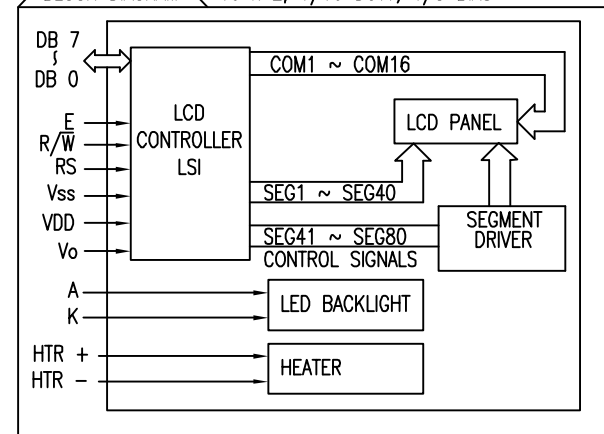
PIN CONFIGURATION

PIN NO.	SYMBOL	LEVEL	FUNCTION
1	V _{SS}	-	POWER SUPPLY
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
17	HTR +	-	+12V
18	HTR -	-	GND (0V)

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



BLOCK DIAGRAM 16 x 2, 1/16 DUTY, 1/5 BIAS



ELECTRICAL CHARACTERISTICS

V_{DD}=4.7V to 5.3V, 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	-	1.6	2.5	mA
INPUT VOLTAGE	HIGH	V _{IH}	-	2.2	-	V _{DD} V
	LOW	V _{IL}	-	0	-	0.6 V
OUTPUT VOLTAGE	HIGH	V _{OH}	-	2.4	-	V
	LOW	V _{OL}	-	-	0.4	V
*LED BACKLIGHT	VOLTAGE	V _f	I _f =120mA	-	4.2	4.6 V
	CURRENT	I _f	-	-	120	200 mA
	POWER CONSUMPTION	PD	-	-	552	mW
	LUMINOUS	L	I _f =120mA	70	-	cd/m ²
	COLOR	-	YELLOW / GREEN	-	-	nm
HEATER	VOLTAGE	V _{fH}	-	-	12	V
	RESISTANCE	-	-	-	11	OHM
	CURRENT	I _H	-	-	1.1	AMP
	POWER	PH	-	-	13.1	W

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	-	4.2@50°C	4.8@0°C	V
INPUT VOLTAGE	V _I	T _a =25°C	V _{SS}	V _{DD}	V
OPERATING TEMPERATURE	T _{opr}	LCR-U	-40	+85	°C
STORAGE TEMPERATURE	T _{stg}	LCR-U	-40	+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

REV.

PART NUMBER

LCR-U01602DSF/A-H

4.35mm CHARACTER HEIGHT, 5 x 8 DOT MATRIX,
16 x 2 LCD MODULE, 1/16 DUTY, 1/5 BIAS.

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RELIABILITY NOTE

OUR 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.

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DATE: 11.13.09

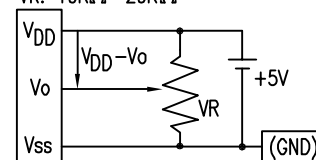
PAGE: 2 OF 2

SCALE: N/A

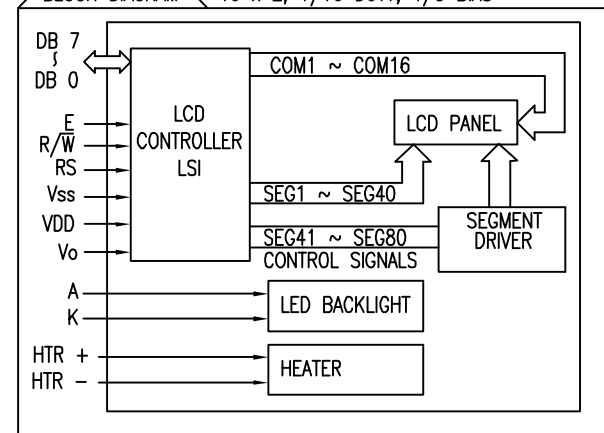
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BLOCK DIAGRAM 16 x 2, 1/16 DUTY, 1/5 BIAS



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			MIN.	TYP.	MAX.	
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SUPPLY CURRENT FOR LOGIC	I _{DD}	V _{DD} =5V	-	1.6	2.5	mA
INPUT VOLTAGE	HIGH	V _{IH}	-	2.2	-	V _{DD} V
	LOW	V _{IL}	-	0	-	0.6 V
OUTPUT VOLTAGE	HIGH	V _{OH}	-	2.4	-	V
	LOW	V _{OL}	-	-	0.4	V
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	RESISTANCE	-	-	-	11	OHM
	CURRENT	I _H	-	-	1.1	AMP
	POWER	PH	-	-	13.1	W

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	-	4.2@50°C	4.8@0°C	V
INPUT VOLTAGE	V _I	T _a =25°C	V _{SS}	V _{DD}	V
OPERATING TEMPERATURE	T _{opr}	LCR-U	-40	+85	°C
STORAGE TEMPERATURE	T _{stg}	LCR-U	-40	+85	°C

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REV.

PART NUMBER

LCR-U01602DSF/A-H

4.35mm CHARACTER HEIGHT, 5 x 8 DOT MATRIX,
16 x 2 LCD MODULE, 1/16 DUTY, 1/5 BIAS.

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