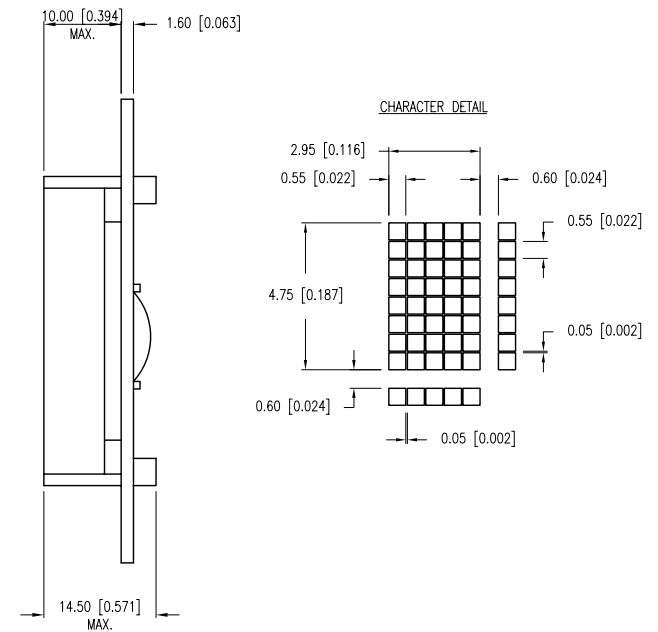
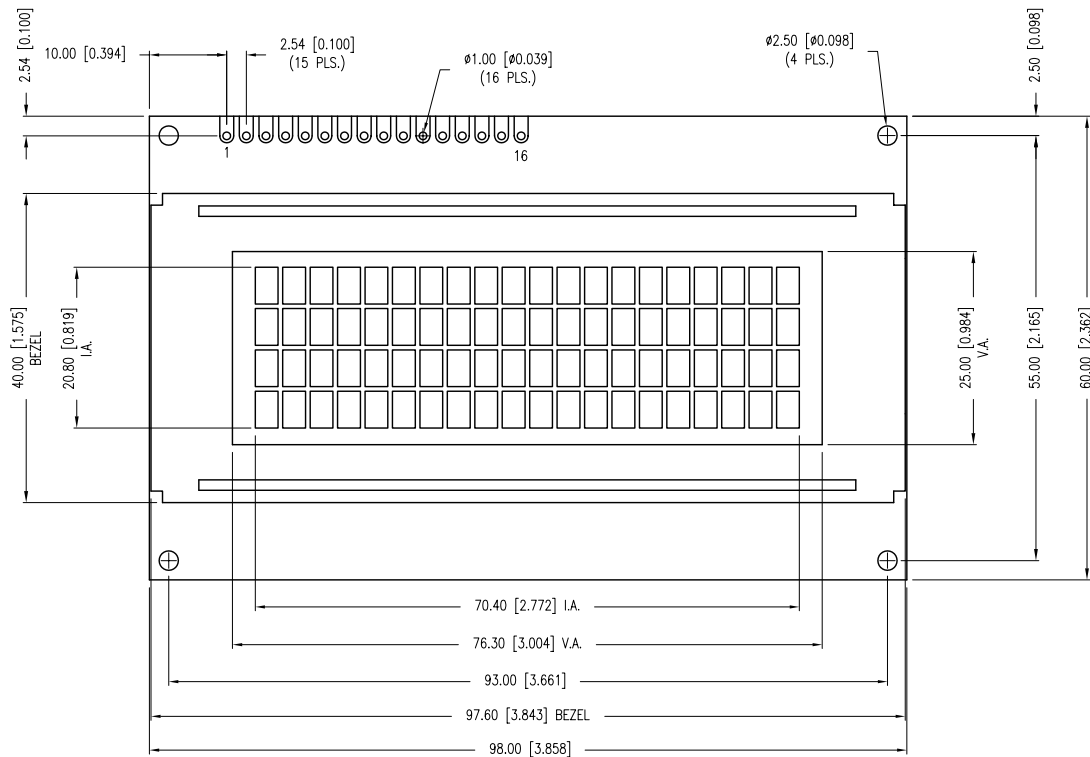


PART NUMBER	LCR-H02004DSF-Y	REV.	A
DATE	E.C.N. NUMBER AND REVISION COMMENTS		REV.
12.19.11	E.C.N. #11767.		A

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



**A] NOTES:**

1. PROTECTIVE TAPE TO BE SUPPLIED WITH BLUE GRIPPER TAB.

\*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

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PHONE: +1.847.359.2790  
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WEB: WWW.LUMEX.COM

20 x 4 CHARACTER LCD MODULE, STN YELLOW, TRANSFLECTIVE, LED BACKLIGHT, 6:00 VIEW.

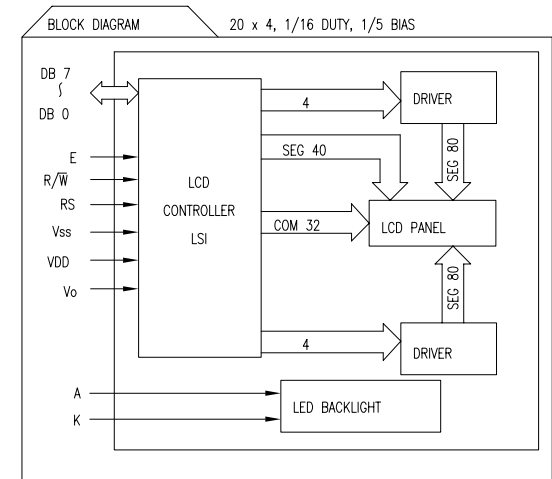
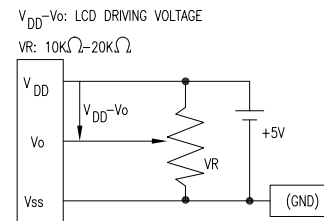
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DATE:	05.17.10	DRAWN BY:	JH
PAGE:	1 OF 2	CHKD BY:	SS
SCALE:	NTS	APRVD BY:	JD
UNIT:	mm [INCH]		(Pb)

PART NUMBER	LCR-H02004DSF-Y	REV.	A
DATE	E.C.N. NUMBER AND REVISION COMMENTS		REV.
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PIN CONFIGURATION			
PIN NO.	SYMBOL	LEVEL	FUNCTION
1	V <sub>SS</sub>	—	POWER SUPPLY GND (0V) 5V FOR LCD DRIVE
2	V <sub>DD</sub>	—	
3	V <sub>O</sub>	—	
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	A	—	ANODE LED BACKLIGHT
16	K	—	CATHODE LED BACKLIGHT



ELECTRICAL CHARACTERISTICS		$V_{DD}=4.7V$ to $5.3V$ , $T_A=25^\circ C$				
ITEM	SYMBOL	CONDITION	STANDARD VALUE			UNIT
			MIN.	TYP.	MAX.	
SUPPLY VOLTAGE FOR LOGIC	$V_{DD}-V_{SS}$	—	—	5.0	—	V
SUPPLY CURRENT FOR LOGIC	$I_{DD}$	$V_{DD}=5V$	—	2.0	3.0	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	—	V
	LOW	$V_{OL}$	$I_{OL}=1.6mA$	—	—	0.4
LED BACKLIGHT	VOLTAGE	$V_f$	$I_f=300mA$	—	4.2	4.5
	CURRENT	$I_f$	—	—	300	600
	POWER CONSUMPTION	PD	—	—	1260	mW
	LUMINOUS	L	$I_f=300mA$	70	—	$cd/m^2$
	COLOR	—	—	—	—	nm

ABSOLUTE MAXIMUM RATINGS					
ITEM	SYMBOL	TEST CONDITION	STANDARD VALUE		UNIT
			MIN	MAX	
SUPPLY VOLTAGE FOR LOGIC	$V_{DD}-V_{SS}$	$T_a=25^\circ C$	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	$V_I$	$T_a=25^\circ C$	$V_{SS}$	$V_{DD}$	V
OPERATING TEMPERATURE	$T_{opr}$	—	-20	70	°C
STORAGE TEMPERATURE	$T_{stg}$	—	-30	80	°C

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