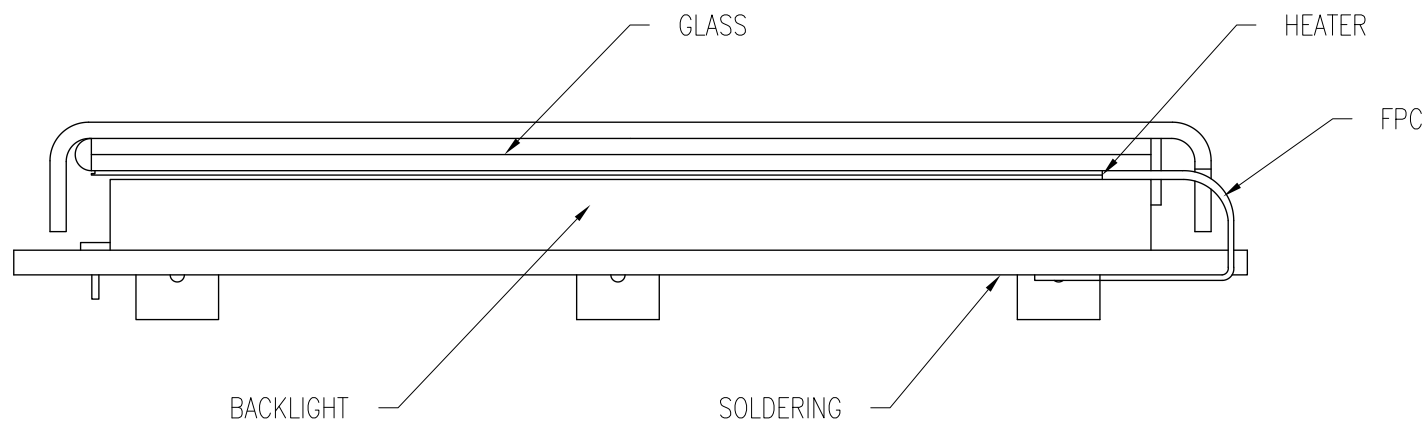
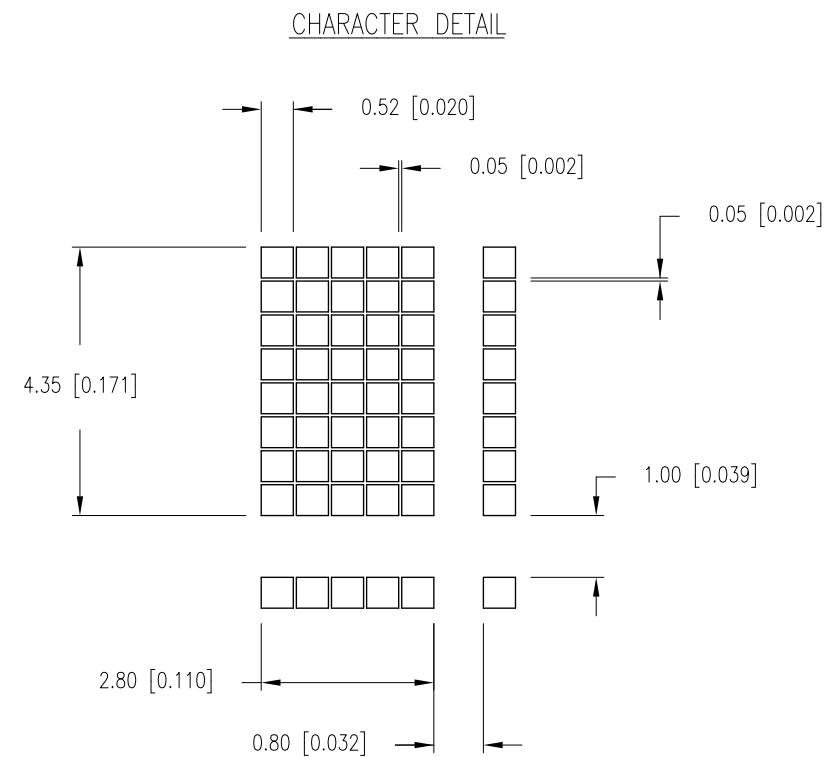
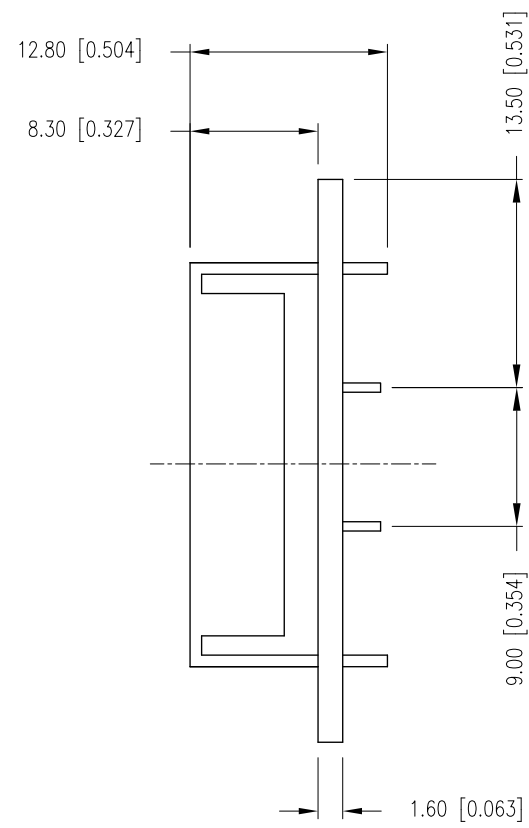
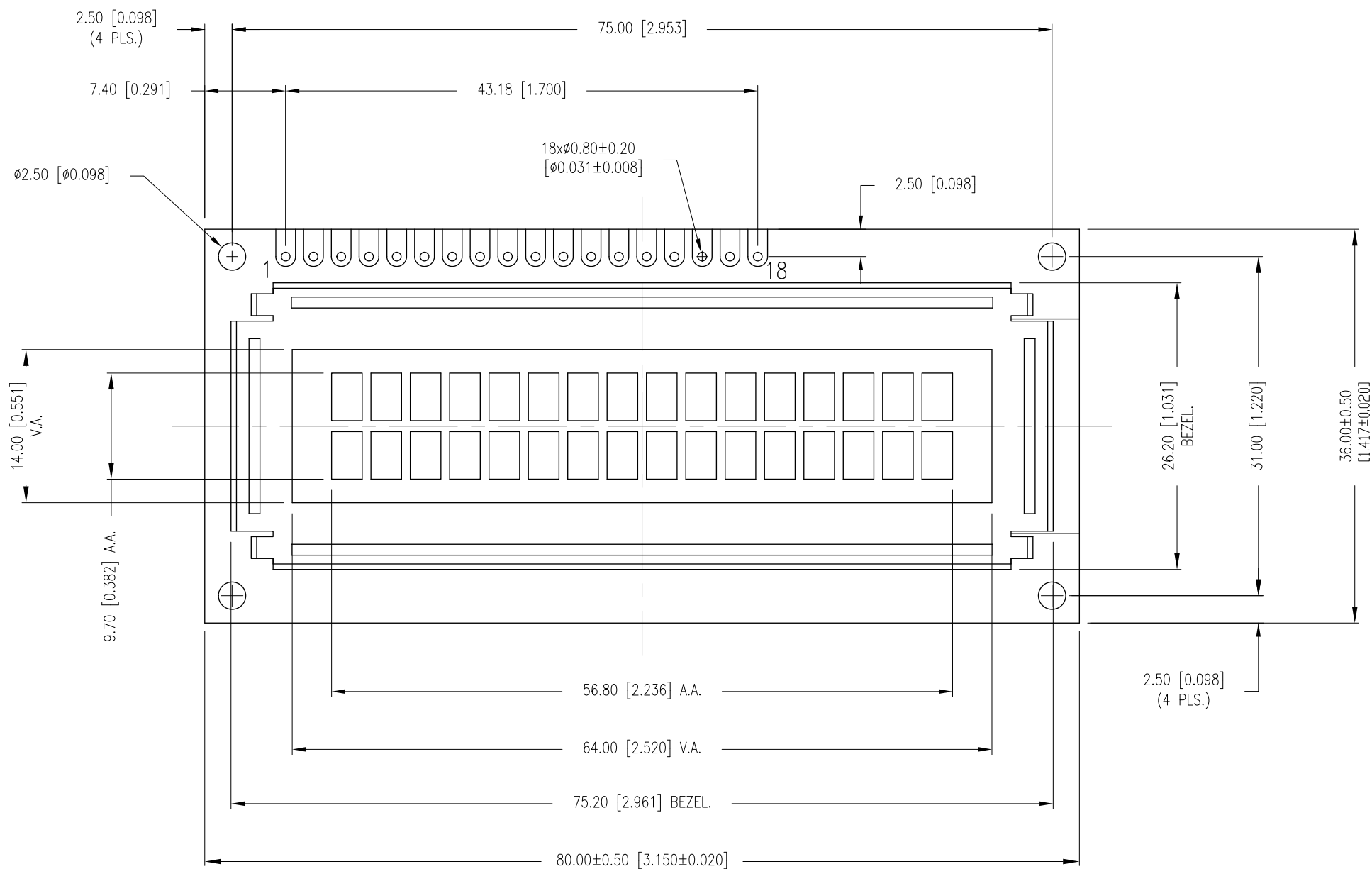


PART NUMBER	LCR-U01602DSF/AWH	REV.	B
DATE	E.C.N. NUMBER AND REVISION COMMENTS		REV.
05.20.10	E.C.N. #11642.		A
01.04.19	ECN-Lumex201900003		B

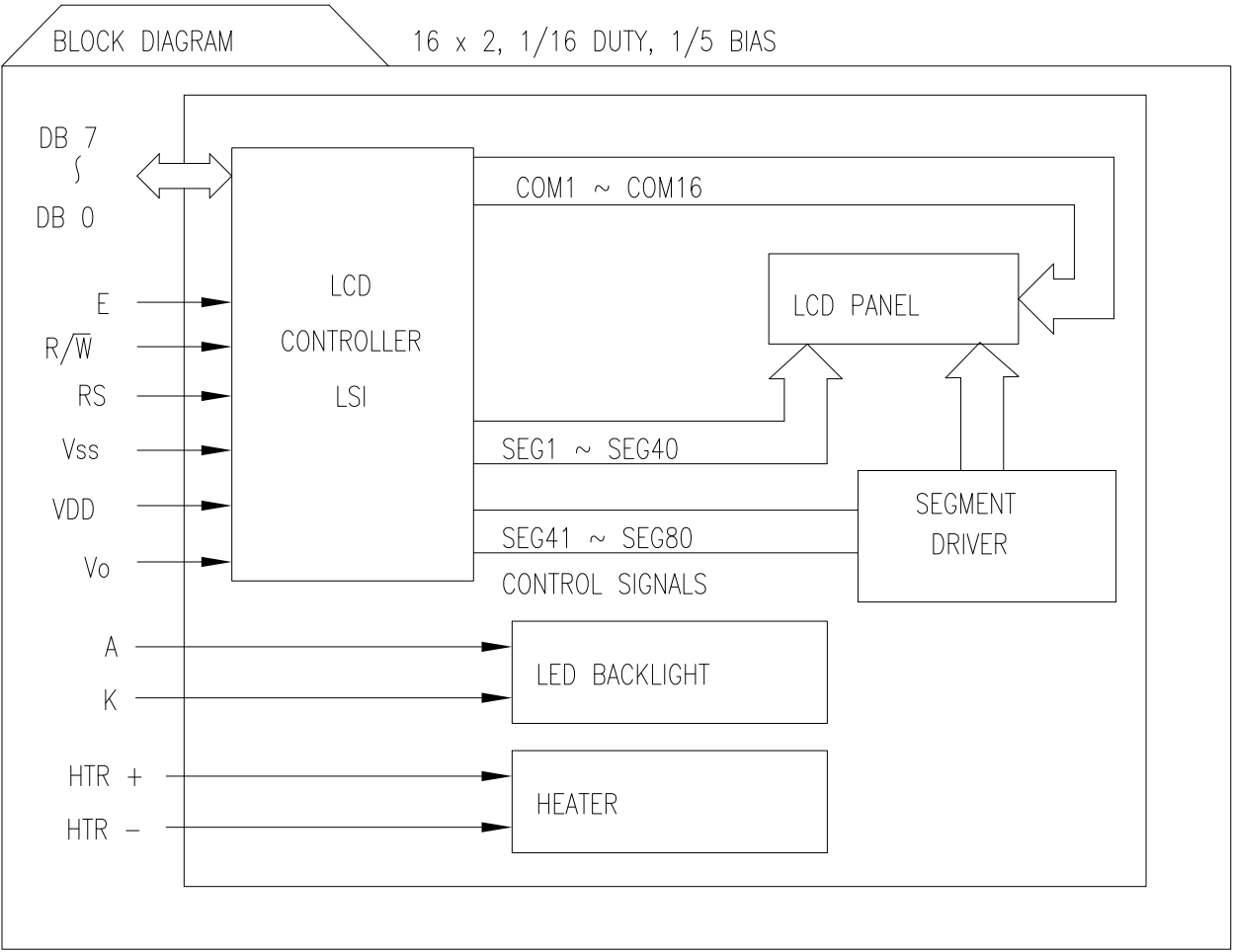
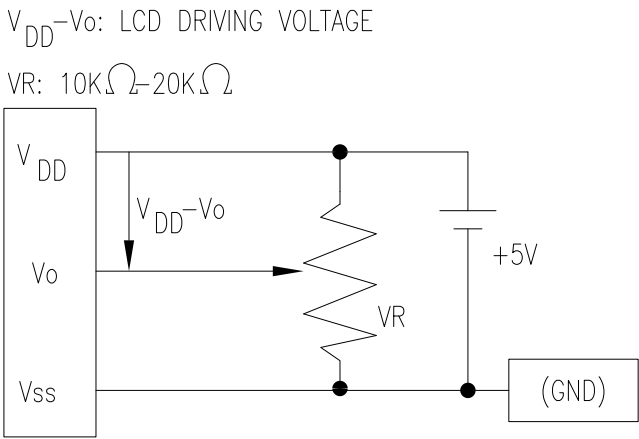


CAUTION: STATIC SENSITIVE DEVICE
FOLLOW PROPER E.S.D. HANDLING PROCEDURES
WHEN WORKING WITH THIS PART.

*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

 425 N. GARY AVE. CAROL STREAM, IL 60188-4900 PHONE: 800-278-5666 FAX: 630-315-2152 WEB: WWW.LUMEX.COM	16 x 2 CHARACTER LCD MODULE, STN GRAY, W/ HEATER, TRANSFLECTIVE, WHITE LED BACKLIGHT, 6:00 VIEW.	DATE: 01.04.19	DRAWN BY: C.S.
	THE SPECIFICATIONS MAY CHANGE AT ANY TIME WITHOUT NOTICE.	PAGE: 1 OF 2	CHKD BY: E.C.
	CONFIDENTIAL INFORMATION THE INFORMATION CONTAINED IN THIS DOCUMENT IS THE PROPERTY OF LUMEX INC. EXCEPT AS SPECIFICALLY AUTHORIZED IN WRITING BY LUMEX INC., THE HOLDER OF THIS DOCUMENT SHALL KEEP ALL INFORMATION CONTAINED HEREIN CONFIDENTIAL AND SHALL PROTECT SAME IN WHOLE OR IN PART FROM DISCLOSURE AND DISSEMINATION TO ALL THIRD PARTIES.	SCALE: N/A	APRVD BY: G.Y.
		UNIT: mm [INCH]	

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/ $\overline{W}$	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)	



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	If=15mA	—	6.2	6.8	V
	CURRENT	If	—	—	15	—	mA
	POWER CUNSUMPTION	PD	—	—	90	—	mW
	LUMINOUS	L	If=15mA	70	—	—	cd/m ²
	COLOR	X	WHITE	.240	—	.330	
	COORDINATE	Y		.240	—	.330	
HEATER	VOLTAGE	V _{fH}	—	—	12	20	V
	RESISTANCE		—	50	100	150	OHM
	CURRENT	I _H	—	100	150	200	mA
	POWER	P _H	—	1.0	1.6	2.2	W

ABSOLUTE MAXIMUM RATINGS					
ITEM	SYMBOL	TEST CONDITION	STANDARD VALUE		UNIT
			MIN	MAX	
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}	W/ HEATER	-40	+85	°C
STORAGE TEMPERATURE	T _{stg}	W/ HEATER	-40	+85	°C