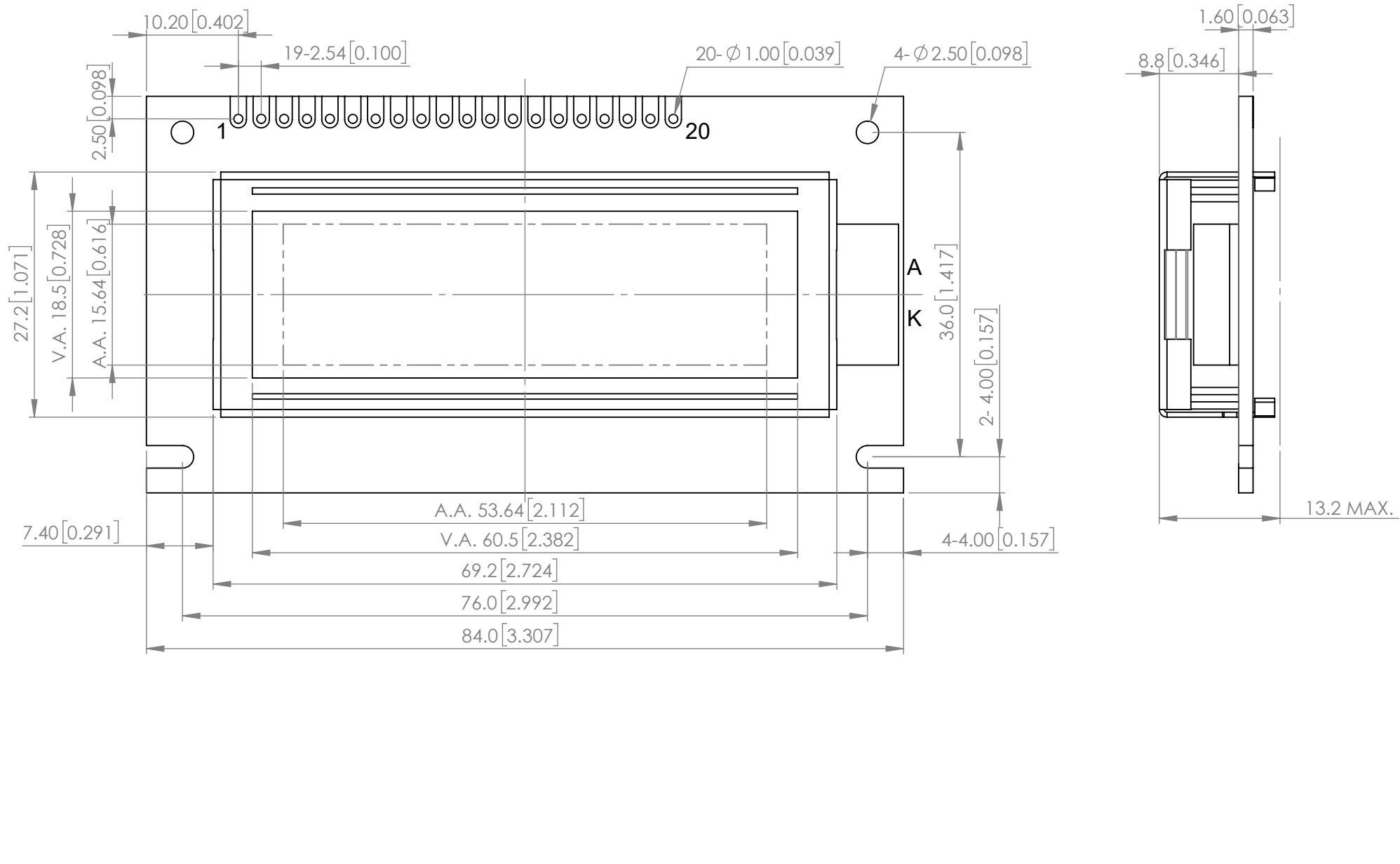


PART NUMBER		LCM-H12232GSF	REV	B
REV	E.C.N. NUMBER AND REVISION COMMENTS		DATE	
A	E.C.N. #11922		08.26.14	
B	ECN-Lumex202400006		02.16.24	



PIN NO.	SINGLE
1	Vss
2	VDD
3	Vo
4	Ao
5	/CS1
6	/CS2
7	CL
8	E
9	R/W
10	DB0
11	DB1
12	DB2
13	DB3
14	DB4
15	DB5
16	DB6
17	DB7
18	/RES
19	A
20	K

CHARACTER DETIAL

STATIC 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}

PIN CONFIGURATION

PIN NO.	SYMBOL	LEVEL	FUNCTION
1	VSS	0V	POWER SUPPLY GROUND
2	VDD	5.0V	LOGIC SUPPLY VOLTAGE
3	Vo	-	CONTRAST ADJ.
4	Ao	H/L	H: DATA L: INSTRUCTION CODE
5	/CS1	L	CHIP SELECT SIGNAL FOR IC1
6	/CS2	L	CHIP SELECT SIGNAL FOR IC2
7	CL	H/L	CLOCK INPUT(2KHz)
8	E	H->L	ENABLE SIGNAL
9	R/W	H/L	H: DATA READ L: DATA WRITE
10	DB0	H/L	DATA BIT 0
11	DB1	H/L	DATA BIT 1
12	DB2	H/L	DATA BIT 2
13	DB3	H/L	DATA BIT 3
14	DB4	H/L	DATA BIT 4
15	DB5	H/L	DATA BIT 5
16	DB6	H/L	DATA BIT 6
17	DB7	H/L	DATA BIT 7
18	/RES	L	RESET SIGNAL
19	A	4.1V	BACK LIGHT SUPPLY(+)
20	K	0V	BACK LIGHT SUPPLY(-)

ABSOLUTE MAXIMUM RATINGS TA=25℃

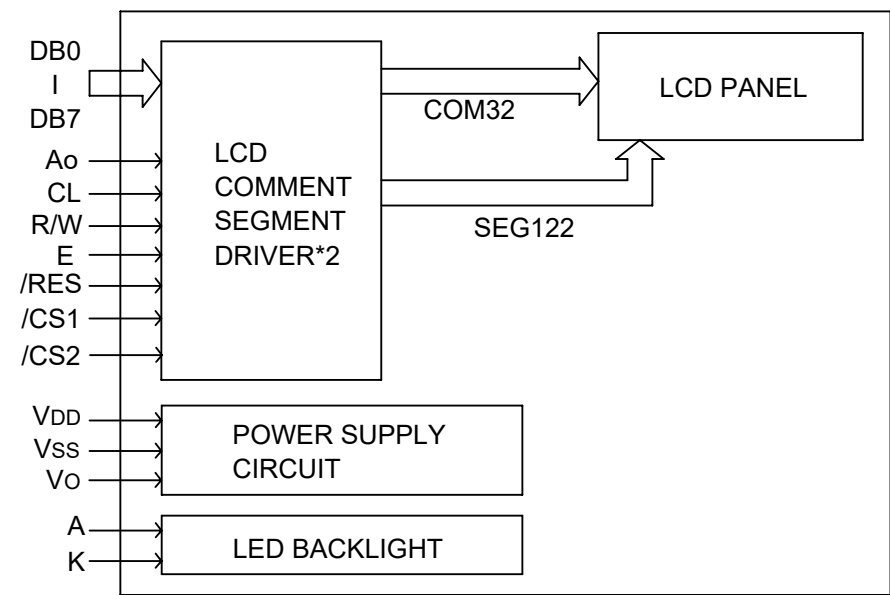
ITEM	SYMBOL	VALUE		UNIT
		MIN	MAX	
SUPPLY VOLTAGE FOR LOGIC	VDD-VSS	-0.3	7.0	V
SUPPLY VOLTAGE FOR LCD	VDD-Vo	-0.3	13.0	V
INPUT VOLTAGE	Vi	-0.3	VDD	V
BACKLIGHT POWER DISSIPATION	Pd	-	830	mW
BACKLIGHT FORWARD CURRENT	If	-	180	mA
BACKLIGHT REVERSE VOLTAGE	VR	-	8	V
OPERATING TEMPERATURE	TOPR	-20	70	℃
STORAGE TEMPERATURE	TSTG	-30	80	℃

ELECTRICAL CHARACTERISTIC TA=25℃

ITEM		SYMBOL	TEST COND.	STANDARD VALUE			UNIT
				MIN.	TYP.	MAX.	
SUPPLY VOLTAGE FOR LOGIC		VDD-VSS	-	4.5	5.0	5.5	V
SUPPLY CURRENT FOR LOGIC		IDD	VDD=5.0V Vo=4.7V	-	2.0	3.0	mA
INPUT VOLTAGE	HIGH	VIH	H LEVEL	VDD-1.2	-	VDD	V
	LOW	VIL	L LEVEL	0	-	0.8	V
OUTPUT VOLTAGE	HIGH	VOH	H LEVEL	VDD-0.3	-	VDD	V
	LOW	VOL	L LEVEL	0	-	0.3	V
LCM RECOMMEND LCD MODULE DRIVING VOLTAGE		VDD-Vo	TA=0℃	4.5	4.8	5.2	V
			TA=25℃	4.4	4.7	5.1	
			TA=50℃	4.3	4.6	5.0	
LED BACKLIGHT	FORWARD VOLTAGE	Vf	If=120mA	3.9	4.1	4.6	V
	FORWARD CURRENT	If	-	-	120	-	mA
	LUMINOUS	L	If=120mA	150	200	-	cd/m²
	PEAK WAVELENGTH	λP	-	567	572	577	nm

*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}

BLOCK DIAGRAM



POWER SUPPLY

