

C2004D	20 CHARS×4 LINES	1/16 DUTY	1/4 BIAS
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1.FEATURE :

LCD TYPE	STN
BACKLIGHT TYPE	LED BACKLIGHT
CHARACTER FONTS	5×8 DOTS (WITH CURSOR)
CONTROLLER	S6A0069 OR EQUIVALENT
POWER SUPPLY FOR LCM	DC +3.3V (5.0V)
LED BACKLIGHT INPUT	DC +3.3V (5.0V)
EL BACKLIGHT INPUT	-
EL INVERTER	-

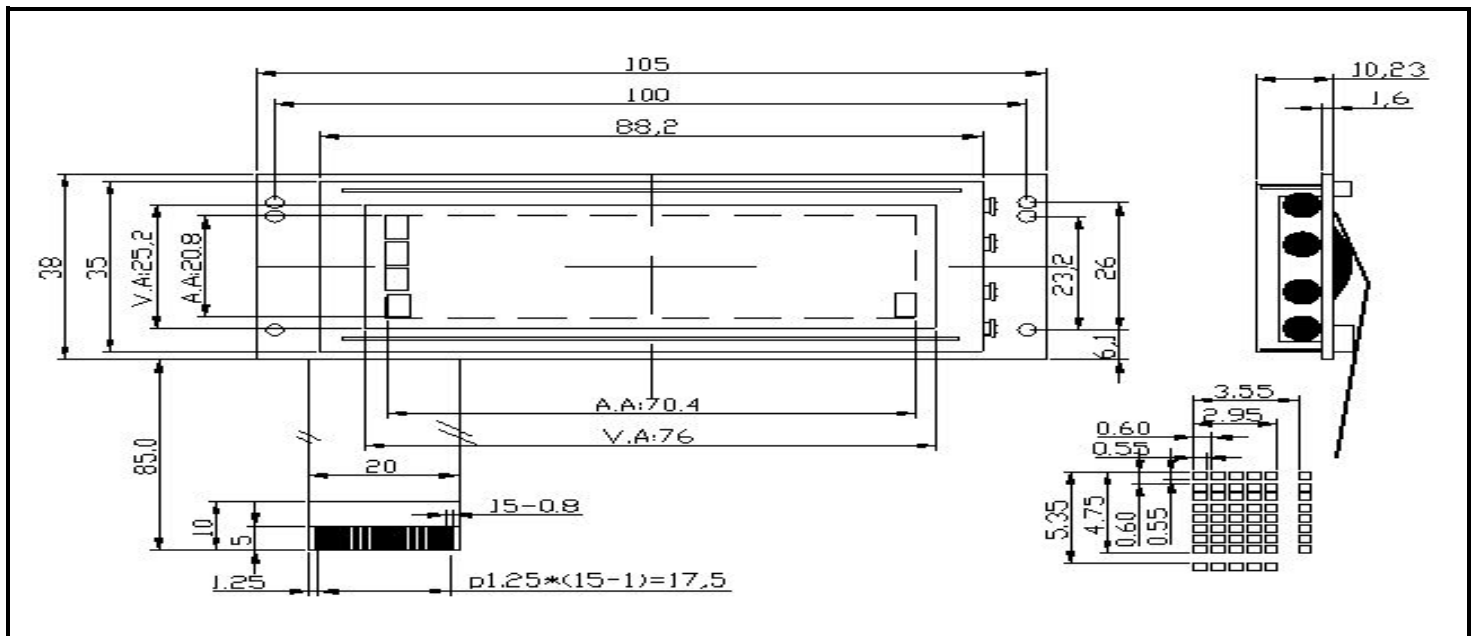
3.ABSOLUTE MAXIMUM RATINGS :

ITEM	SYMBOL	MIN	TYP	MAX	UNIT
OPERATING TEMP.	T _{OP}	-20	-	70	°C
STORAGE TEMP.	T _{ST}	-30	-	80	°C
INPUT VOLTAGE	V _I	V _{SS}	-	V _{DD}	V
SUPPLY VOL-LOGIC	V _{DD} -V _{SS}	-	3.3	-	V
SUPPLY VOL-LCD	V _{DD} -V _O	-	-	4.5	V

5.INTERFACE PIN CONNECTIONS :

NO	SYM	LEVEL	FUNCTION	NO	SYM	LEVEL	FUNCTION
1	V _{SS}	-	0V	9	DB ₃	H/L	DATA BIT ₃
2	V _{DD}	-	5V	10	DB ₄	H/L	DATA BIT ₄
3	RS	H/L	REGISTER SELECT	11	DB ₅	H/L	DATA BIT ₅
4	R/W	H/L	READ/WRITE	12	DB ₆	H/L	DATA BIT ₆
5	E	H.H. →	ENABLE SIGNAL	13	DB ₇	H/L	DATA BIT ₇
6	DB ₀	H/L	DATA BIT ₀	14	A(+)	+5V	BACKLIGHT
7	DB ₁	H/L	DATA BIT ₁	15	K(-)	0V	BACKLIGHT
8	DB ₂	H/L	DATA BIT ₂				

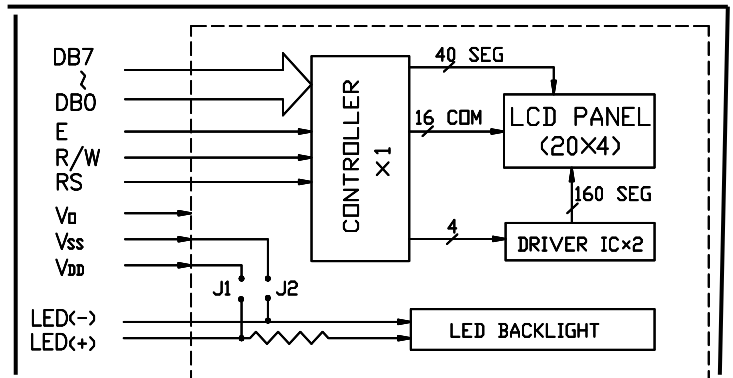
7.DIMENSIONAL DRAWING :



2.ELECTRICAL CHARACTERISTICS :

ITEM	SYM	CONDITION	MIN	TYP	MAX	UNIT
SUPPLY VOLTAGE FOR LCD	V _{DD} -V _O	T _a =0°C	-	4.6	-	V
		T _a =25°C	-	4.4	-	V
		T _a =50°C	-	4.2	-	V
INPUT VOLTAGE	V _I	-	3.0	3.3	4.0	V
INPUT HIGH VOL	V _{IH}	-	2.2	-	V _{DD}	V
INPUT LOW VOL	V _{IL}	-	0	-	0.6	V
OUTPUT HIGH VOL	V _{OH}	-	2.4	-	-	V
OUTPUT LOW VOL	V _{OL}	-	-	-	0.4	V
SUPPLY CURRENT	I _{DD}	V _{DD} =3.3V	-	4.5	6.0	mA
LED CURRENT	I _F	T _a =25°C	-	60	-	mA
LED DISSIPATION	P _D	T _a =25°C	-	300	-	mW

4.BLOCK DIAGRAM :



6.DISPLAY CHARACTER ADDRESS CODE :

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
80	81	82	83	84	85	86	87	88	89	8A	8B	8C	8D	8E	8F	90	91	92	93
C0	C1	C2	C3	C4	C5	C6	C7	C8	C9	CA	CB	CC	CD	CE	CF	D0	D1	D2	D3
94	95	96	97	98	99	9A	9B	9C	9D	9E	9F	A0	A1	A2	A3	A4	A5	A6	A7
D4	D5	D6	D7	D8	D9	DA	DB	DC	DD	DE	DF	E0	E1	E2	E3	E4	E5	E6	E7