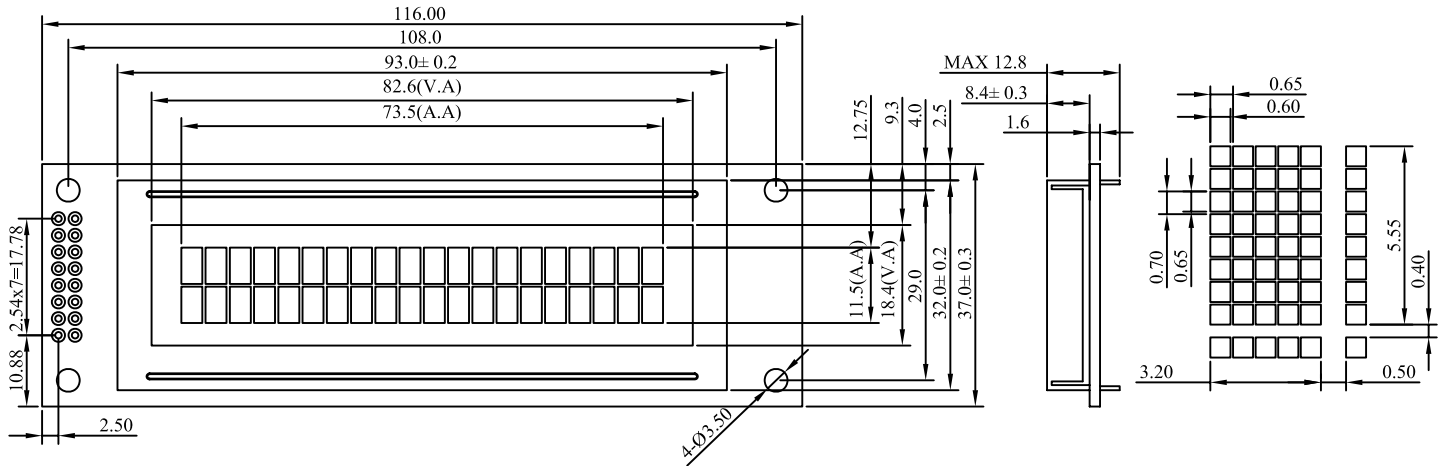


1. DIMENSION OUTLINE



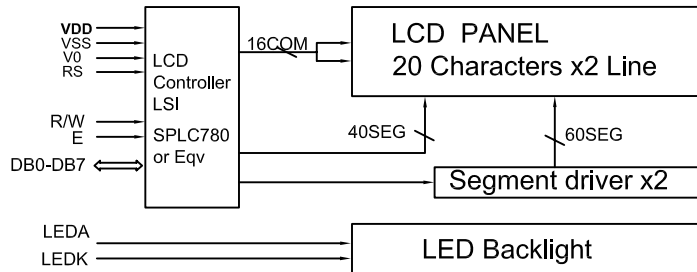
2. MECHANICAL SPECIFICATIONS

ITEM	SPECIFICATIONS	ITEM	REMARK
Module Size(L×W×H)	116×37.0×12.8	mm	Reference Dimensional Outline
View Area(W×H)	82.6×18.4	mm	
Effective V/Area	73.5×11.5	mm	
Number of Characters	20CH×2Lines	-	
Dot Pitch(W×H)	0.65×0.70	mm	
Dot Size(W×H)	0.60×0.65	mm	
Weight(Reflective/Led)	-	g	

3. ABSOLUTE MAXIMUM RATINGS

ITEM	SYMBOL	CONDITION	STANDARD	
			MIN	MAX
Logic Voltage	V <sub>DD</sub>	Ta=25°C	-0.3V	7V
LCD Voltage	V <sub>LCD</sub>		-0.3V	13V
Input Voltage	V <sub>I</sub>		-0.3V	V <sub>DD</sub> +0.3V
Operation Temperature	T <sub>OP</sub>	—	-20°C	70°C
Storage Temperature	V <sub>OP</sub>	—	-30°C	80°C

4. BLOCK DIAGRAMMECHANICAL



5. LED BACKLIGHT SPECIFICATIONS

ITEM	SYMBOL	TYPE	MAX	UNIT
Ta=25°C				
Forward Voltage	V <sub>f</sub>	4.1	4.3	V
Forward Current	I <sub>f</sub>	120	—	mA
Emission Wave Length	λ <sub>p</sub>	568	—	nm

6. INTERFACE PIN CONNECTIONS

ITEM	SYMBOL	LEVEL	FUNCTIONS
1	VSS	0V	Power Ground
2	VDD	+5V	Power Supply For Logic
3	V0	—	Contrast adjust
4	RS	H/L	H:data L:command
5	R/W	H/L	H:read L:write
6	E	H, H→L	Enable signal
7-14	DB0-DB7	H/L	Data Bus
15	LEDA	+5V	Power supply For LED Backlight
16	LEDK	0V	

7. ELECTRICAL CHARACTERISTICS

ITEM	SYMBOL	MIN	TYPE	MAX	UNIT
Ta=25°C					
Logic Power	V <sub>DD</sub>	4.5	5	5.5	V
Input High Voltage	V <sub>IH</sub>	2.2	—	V <sub>DD</sub>	V
Input Low Voltage	V <sub>IL</sub>	-0.3	—	0.6	V
Output High Voltage	V <sub>OH</sub>	2.4	—	V <sub>DD</sub>	V
Output Low Voltage	V <sub>OL</sub>	0	—	0.4	V
Logic Current	I <sub>DD</sub>	—	1.5	3.0	mA
Operation Voltage For LCD	V <sub>DD</sub> -V <sub>0</sub>	—	5	—	V