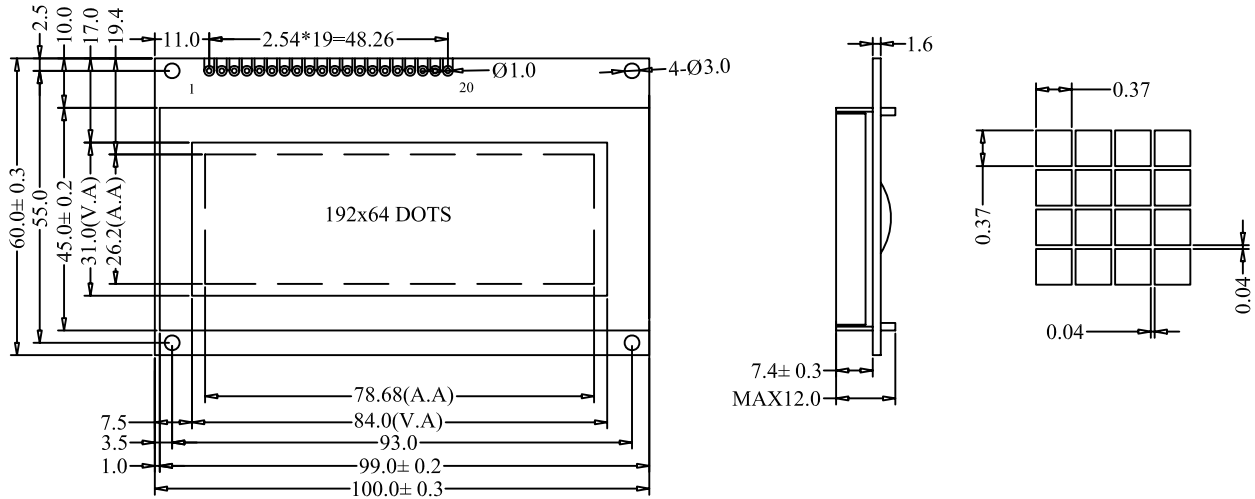


1. DIMENSION OUTLINE



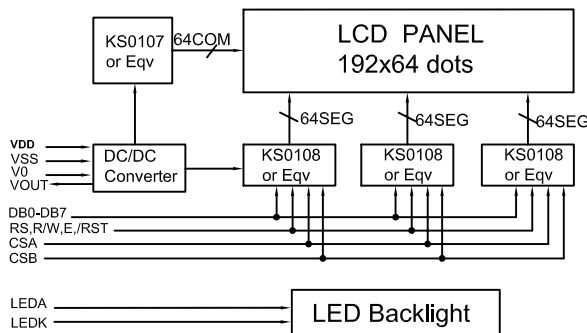
2. MECHANICAL SPECIFICATIONS

ITEM	SPECIFICATIONS	ITEM	REMARK
Module Size(L×W×H)	100.0×60.0×12.0	mm	Reference Dimensional Outline
View Area(W×H)	84.0×31.0	mm	
Effective V/Area	78.68×26.20	mm	
Number of Characters	192×64	-	
Dot Pitch(W×H)	0.41×0.41	mm	
Dot Size(W×H)	0.37×0.37	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	17.5V
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	T <sub>St</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>	180	—	mA
Emission Wave Length	λ <sub>P</sub>	568	—	nm

6. INTERFACE PIN CONNECTIONS

ITEM	SYMBOL	LEVEL	FUNCTIONS
1-8	DB7-DB0	H/L	Data Bus
9	E	H.H→L	Enable signal
10	R/W	H/L	H:read L:write
11	RS	H/L	H:data L:command
12	V0	—	Contrast adjust
13	VDD	+5V	Power supply for logic
14	VSS	0V	Power Ground
15	CSB	L	Chip selection Signal AB 00:Chip 1 01:Chip 2 10:Chip 3
16	CSA	L	
17	VOUT	—	
18	/RST	L	Reset signal
19	LEDA	+5V	LED B/L Power Supply
20	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>	0.8V <sub>DD</sub>	—	V <sub>DD</sub>	V
Input Low Voltage	V <sub>IL</sub>	V <sub>SS</sub>	—	0.8	V
Output High Voltage	V <sub>OH</sub>	2.4	—	—	V
Output Low Voltage	V <sub>OL</sub>	0	—	0.4	V
Logic Current	I <sub>DD</sub>	—	6	8	mA
Operation Voltage For LCD	V <sub>DD-V0</sub>	—	12	—	V