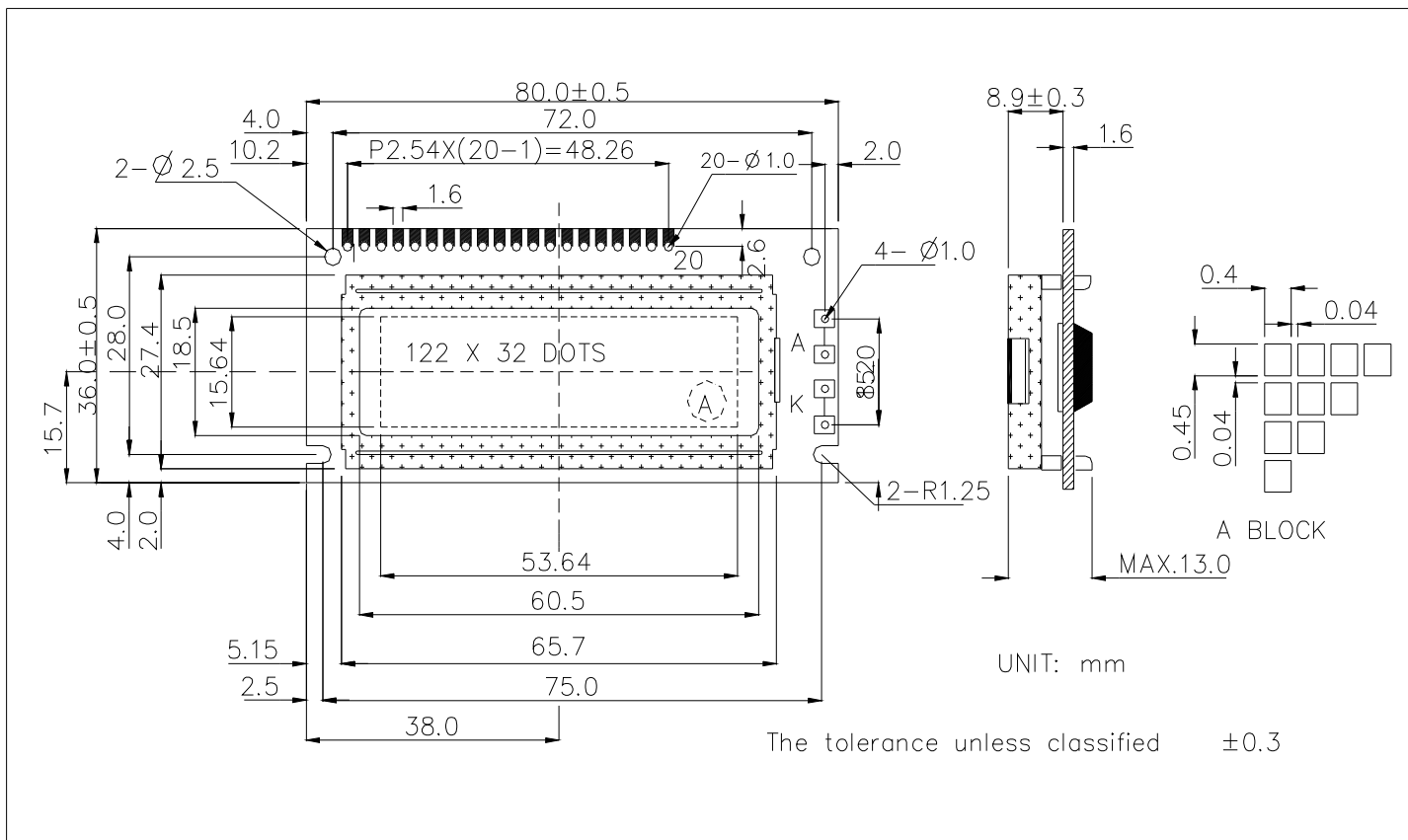
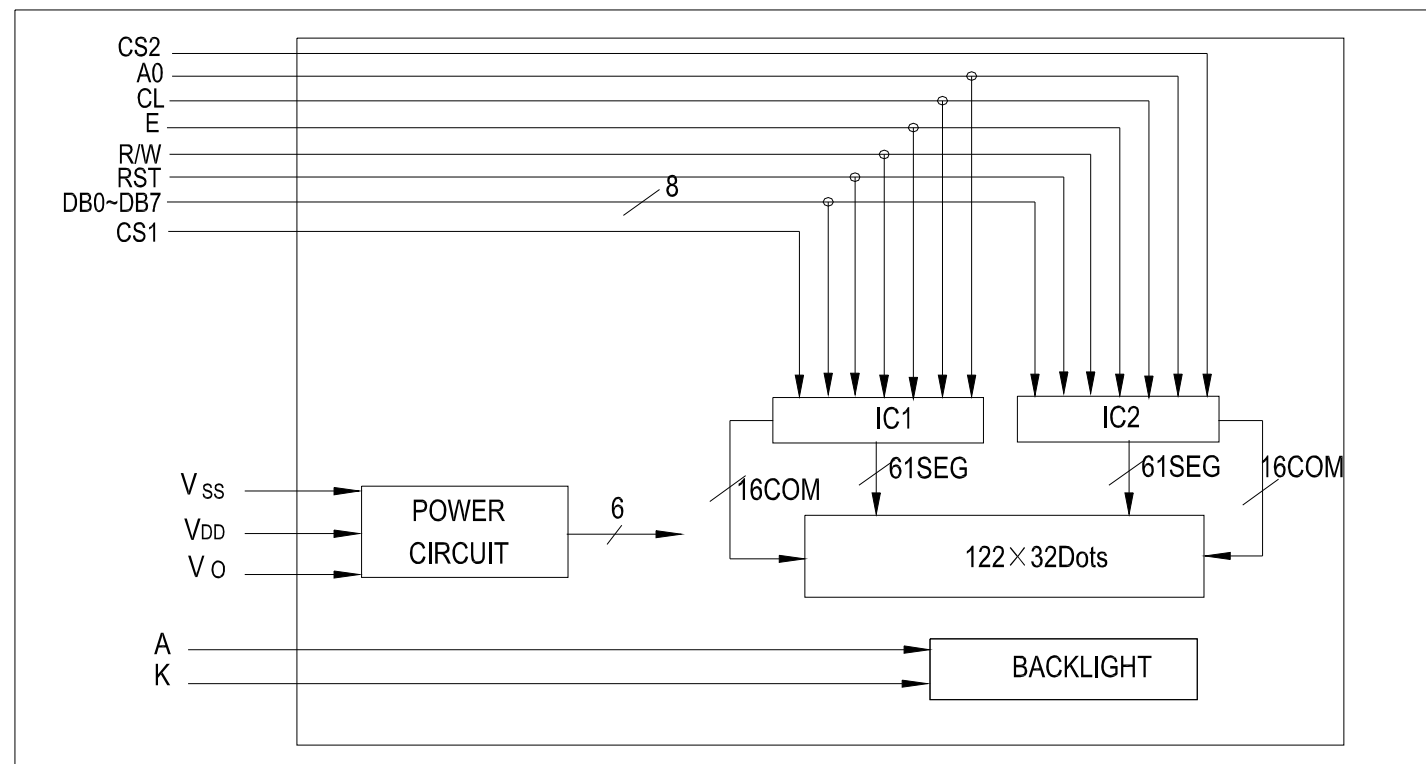


## 1.0 DIMENSIONAL DRAWING



## 2.0 BLOCK DIAGRAM



## 3.0 ELECTRICAL CHARACTERISTICS $T_a=25^\circ\text{C}$ $V_{DD}=5.0\text{V}\pm 0.25\text{V}$

Item	Symbol	Test Condition	Standard Value			Unit
			Min.	Typ.	Max.	
Power Supply Voltage	$V_{DD}-V_{SS}$	25°C	4.5	5.0	5.5	V
LCD Operation Voltage	$V_{OP}$		-	6.5	-	V
LCM Current Consumption	$I_{DD}$		-	2.0	3.0	mA
Backlight Forward Voltage	$V_F$		-	4.2	-	V

## 4.0 ABSOLUTE MAXIMUM RATINGS

Item	Symbol	Test Condition	Standard Value		
			Min.	Max.	Unit
Supply Voltage (Logic)	$V_{DD}-V_{SS}$	25°C	-0.3	7	V
Supply Voltage (LCD)	$V_{DD}-V_O$		-0.3	13.5	V
Input Voltage	$V_{IN}$		-0.3	$V_{DD}+0.3$	V
Operating Temp.	$T_{OPR}$	-	0	50	°C
Storage Temp.	$T_{STG}$	-	-20	70	°C

## 5.0 PIN ASSIGNMENT

PIN No.	Symbol	Description
1	GND	Power supply(GND)
2	$V_{DD}$	Power supply
3	$V_O$	Operating voltage for LCD
4	A0	Register selection H: Display data; L: Instruction
5	/CS1	Chip select for IC1
6	/CS2	Chip select for IC2
7	CL	External clock
8	E	Enable signal
9	R/W	Read/Write selection H: Read; L: Write
10~17	DB0~DB7	Data bus
18	RST	Reset at rising edge
19	LEDA	LED Back-light
20	LEDK	

### Remark

1. LCD option: STN, FSTN .
2. Standard module.
3. Backlight option: LED backlight feature, other specs not available on catalog is under request.