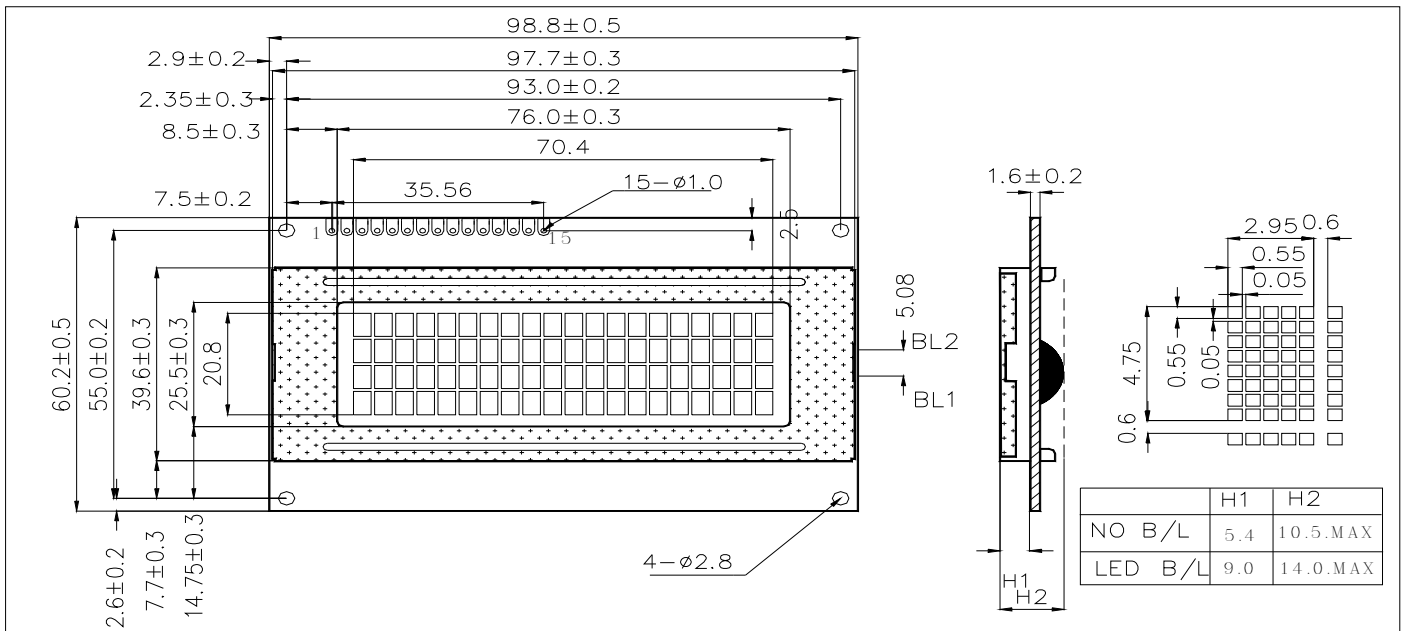
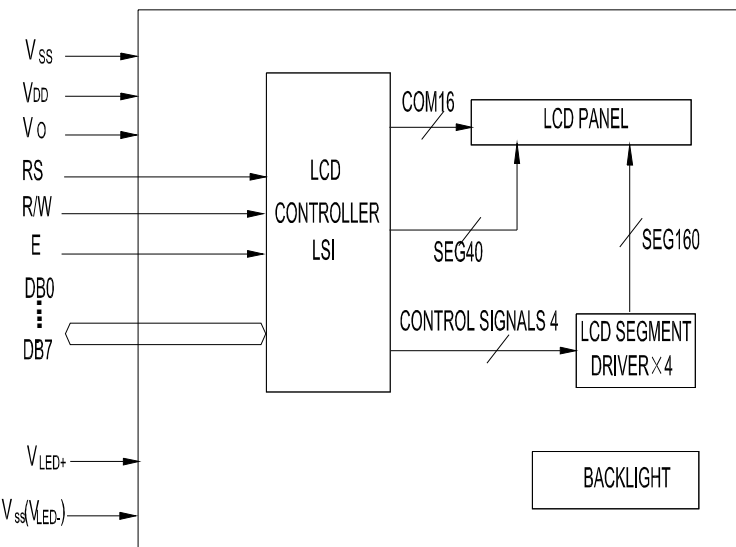


## 1.0 DIMENSIONAL DRAWING



## 2.0 BLOCK DIAGRAM



## 3.0 PIN ASSIGNMENT

Pin no.	Symbol	Function
1	$V_{SS}$	Power supply (GND)
2	$V_{DD}$	Power supply(+)
3	$V_O$	Contrast adjust
4	$R_s$	Register select signal
5	R/W	Data read / write
6	E	Enable signal
7	DB0	Data bus line
...	...	
14	DB7	
15	LED+	

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

Item	Symbol	Test Condition	Standard Value			
			Min.	Typ.	Max.	Unit
Power Supply Voltage	$V_{DD}-V_{SS}$	25°C	4.75	5.0	5.25	V
LCD Operation Voltage	$V_{OP}$		-	4.7	-	V
LCM Current Consumption	$I_{DD}$		-	3.0	5.0	mA
Backlight Forward Voltage	$V_F$		-	4.2	-	V

## 5.0 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)	$V_{DD}-V_O$		$V_{DD}-13.5$	$V_{DD}+0.3$	V
Input Voltage	$V_{IN}$		-0.3	$V_{DD}+0.3$	V
Operating Temp.	$T_{OPR}$		-20	70	°C
Storage Temp.	$T_{STG}$		-30	80	°C

### Remark

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