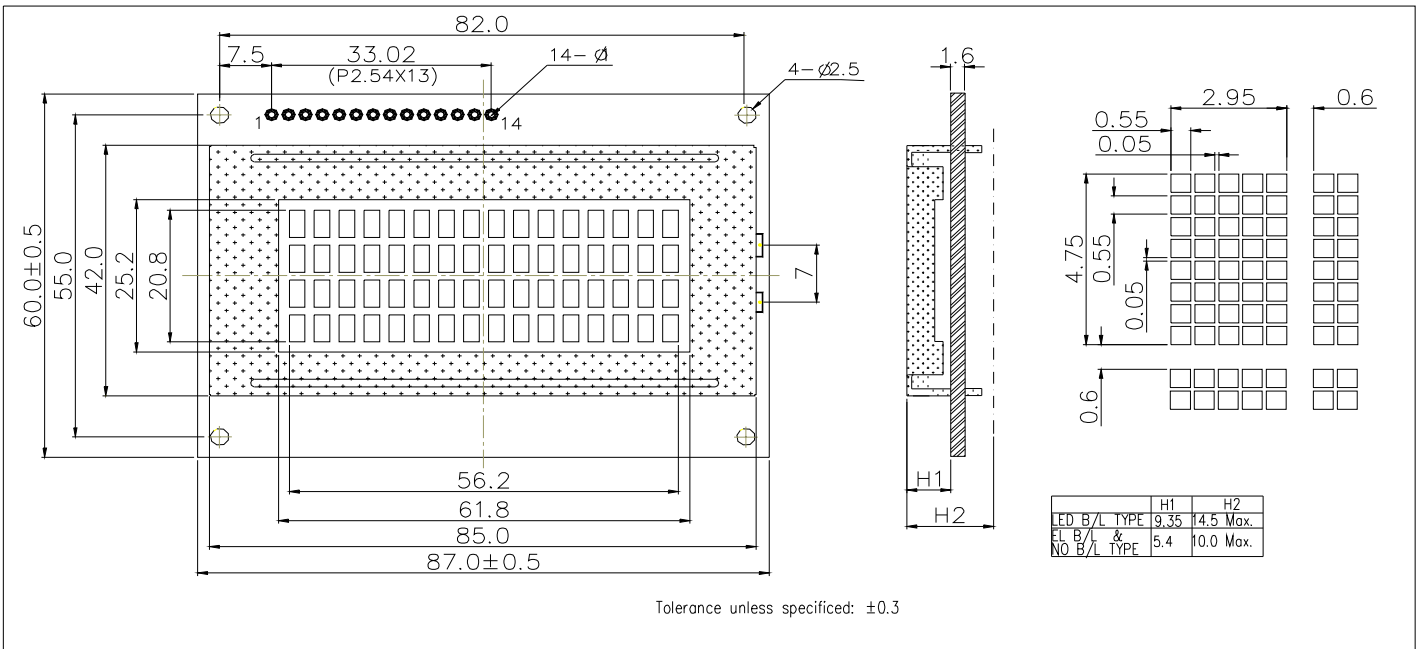
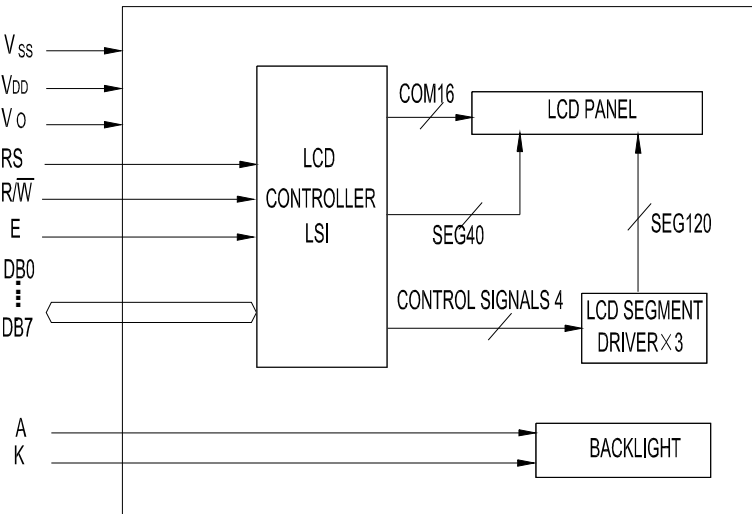


## 1.0 DIMENSIONAL DRAWING



## 2.0 BLOCK DIAGRAM



## 3.0 PIN ASSIGNMENT

Pin no.	Symbol	Function
1	V <sub>SS</sub>	Power supply (GND)
2	V <sub>DD</sub>	Power supply(+)
3	V <sub>O</sub>	Contrast adjust
4	RS	Register select signal
5	R/W	Data read / write
6	E	Enable signal
7	DB0	Data bus line
8	DB1	
9	DB2	
10	DB3	
11	DB4	
12	DB5	
13	DB6	
14	DB7	

## 4.0 ELECTRICAL CHARACTERISTICS Ta=25 °C V<sub>DD</sub>=5.0V±0.25V

Item	Symbol	Test Condition	Standard Value			
			Min.	Typ.	Max.	Unit
Power Supply Voltage	V <sub>DD</sub> -V <sub>SS</sub>	25°C	4.75	5.0	5.25	V
LCD Operation Voltage	V <sub>OP</sub>		-	4.5	-	V
LCM Current Consumption	I <sub>DD</sub>		-	3.0	5.0	mA
Backlight Forward Voltage	V <sub>F</sub>		-	4.2	-	V

## 5.0 ABSOLUTE MAXIMUM RATINGS

Item	Symbol	Test Condition	Standard Value		
			Min.	Max.	Unit
Supply Voltage (Logic)	V <sub>DD</sub> -V <sub>SS</sub>	25°C	-0.3	7.0	V
Supply Voltage (LCD)	V <sub>DD</sub> -V <sub>O</sub>		V <sub>DD</sub> -13.5	V <sub>DD</sub> +0.3	V
Input Voltage	V <sub>IN</sub>		-0.3	V <sub>DD</sub> +0.3	V
Operating Temp.	T <sub>OPR</sub>		0	50	°C
Storage Temp.	T <sub>STG</sub>		-20	70	°C

### Remark

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