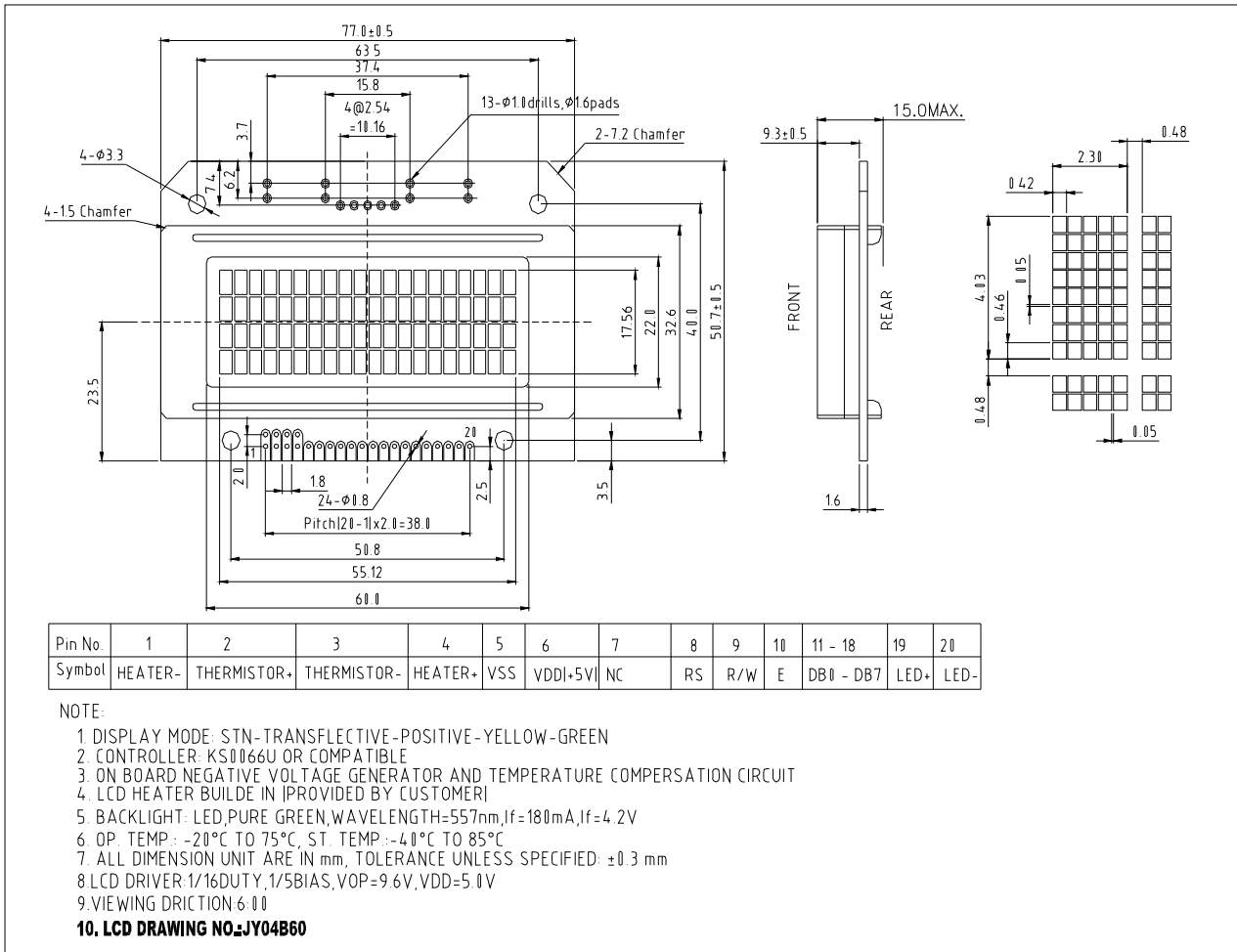
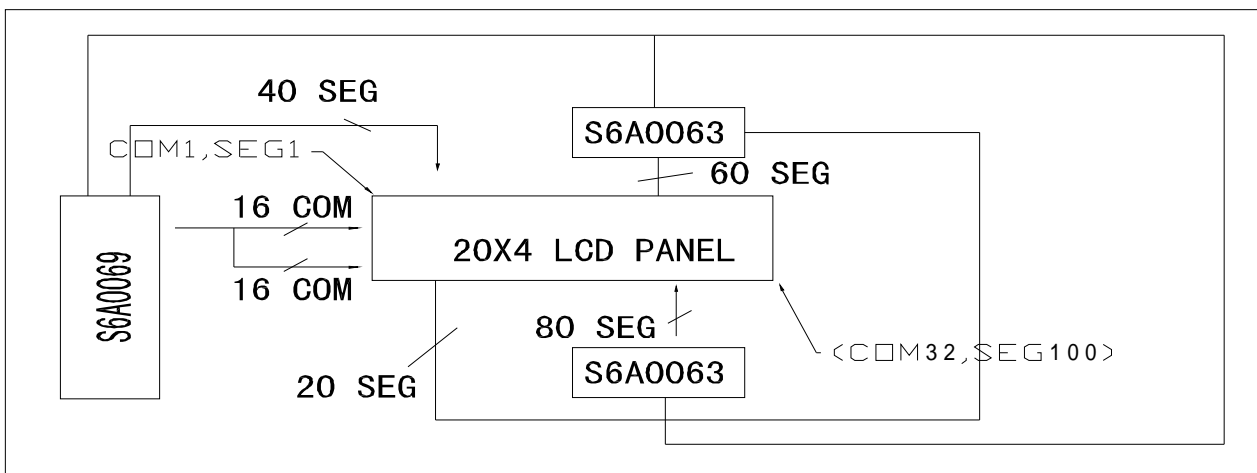


1.0 DIMENSIONAL DRAWING



2.0 BLOCK DIAGRAM



3.0 ELECTRICAL CHARACTERISTICS Ta=25 °C VDD=3.0V±0.25V

Item	Symbol	Test Condition	Standard Value			
			Min.	Typ.	Max.	Unit
Power Supply for Logic	VDD	25°C	5.8	5.0	5.2	V
LCD Operation Voltage	Vop.	25°C	9.4	9.6	9.8	V
LCM Current Consumption	Idd	25°C			4.5	mA

4.0 ABSOLUTE MAXIMUM RATINGS

Item	Symbol	Standard Value		
		Min.	Max.	Unit
Power Supply for Logic	VDD	-0.3	7.0	V
LCD Operation Voltage	VLCD	Vdd-15.0	Vdd+0.3	V
Input Voltage	Vin	-0.3	Vdd+0.3	V
Operating Temp	Top.	-20	75	°C
Storage Temp	Tst.	-40	85	°C

5.0 PIN ASSIGNMENT

Pin No.	Symbol	Description
1	HEATER-	Power Supply for heater(+v)
2	THERMISTOR+	Output of Thermistor
3	THERMISTOR-	Input of Thermistor
4	HERTER+	Power Supply for heater(-v)
5	VSS	GND
6	VDD	Power Supply (+5.0V)
7	NC	No Connection
8	RS	H=Display Data;L=Instruction
9	R/W	H=Read;L=Write
10	E	H=Enable to Read & Write
11-17	DB0-DB7	Data Lines
18	LED+	Power Supply for LED (+4.2V)
19	LED-	Power Supply for LED (0V)

Remark

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