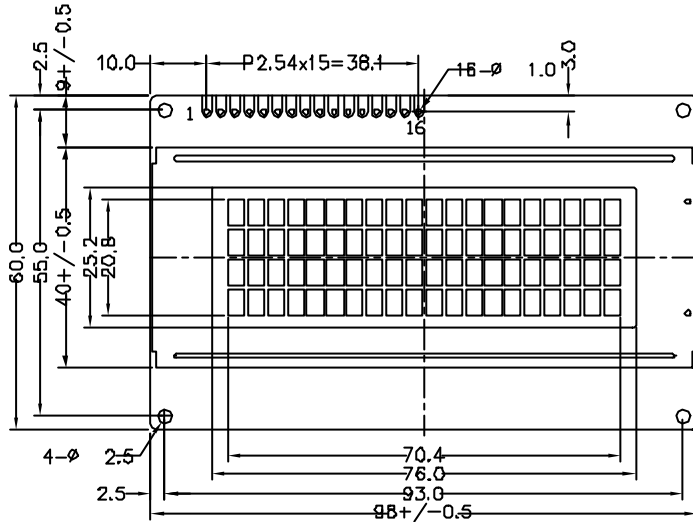


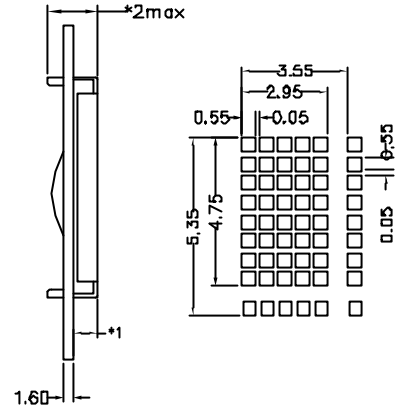
- * 20 Characters x 4 Lines
- * EL or LED Backlight or No Backlight (Reflective)
- * Type: TN; STN(Yellow-Green, Grey, Blue mode)

- * 5x8 Dots
- * 1/16 Duty

External Dimensionss/Display Pattern



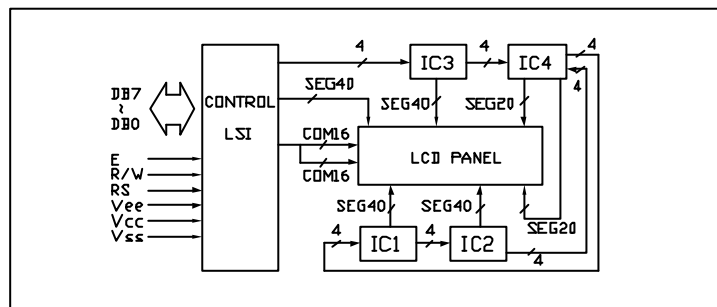
TYPE	*1	*2
R or EL	4.4	9.0
LED	9.0	13.0



External Dimensionss/Display Pattern

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Vss	Vcc	Vo	RS	R/W	E	DB0	DB1	DB2	DB3	DB4	DB5	DB6	DB7	LED+	LED-

Block Diagram



Block Diagram

Item	Symbol	test Condition	Standard Value			Unit
			min.	typ.	max.	
Power Supply Voltage for Logic	Vcc-Vss	-	0	-	7	V
Power Supply Voltage for LCD Drive	Vcc-Vo	-	0	-	13.5	V
Input Voltage	V _i	-	Vss	-	Vcc	V
Operating Temperature	T _{op}	-	0	-	+50	°C
Storage Temperature	T _{stg}	-	-20	-	+60	°C

Block Diagram

Item	Symbol	test Condition	Standard Value			Unit
			min.	typ.	max.	
Input "high" Voltage	V _{IH}	-	2.2	-	Vcc	V
Input "Low" Voltage	V _{IL}	-	-0.3	-	0.6	V
Output "high" Voltage	V _{OH}	-	2.4	-	-	V
Output "Low" Voltage	V _{OL}	-	-	-	0.4	V
Power Supply Current	I _{cc}	-	-	2.0	5.0	mA

V_{cc}=5.0V ±5% T_a=25 °C