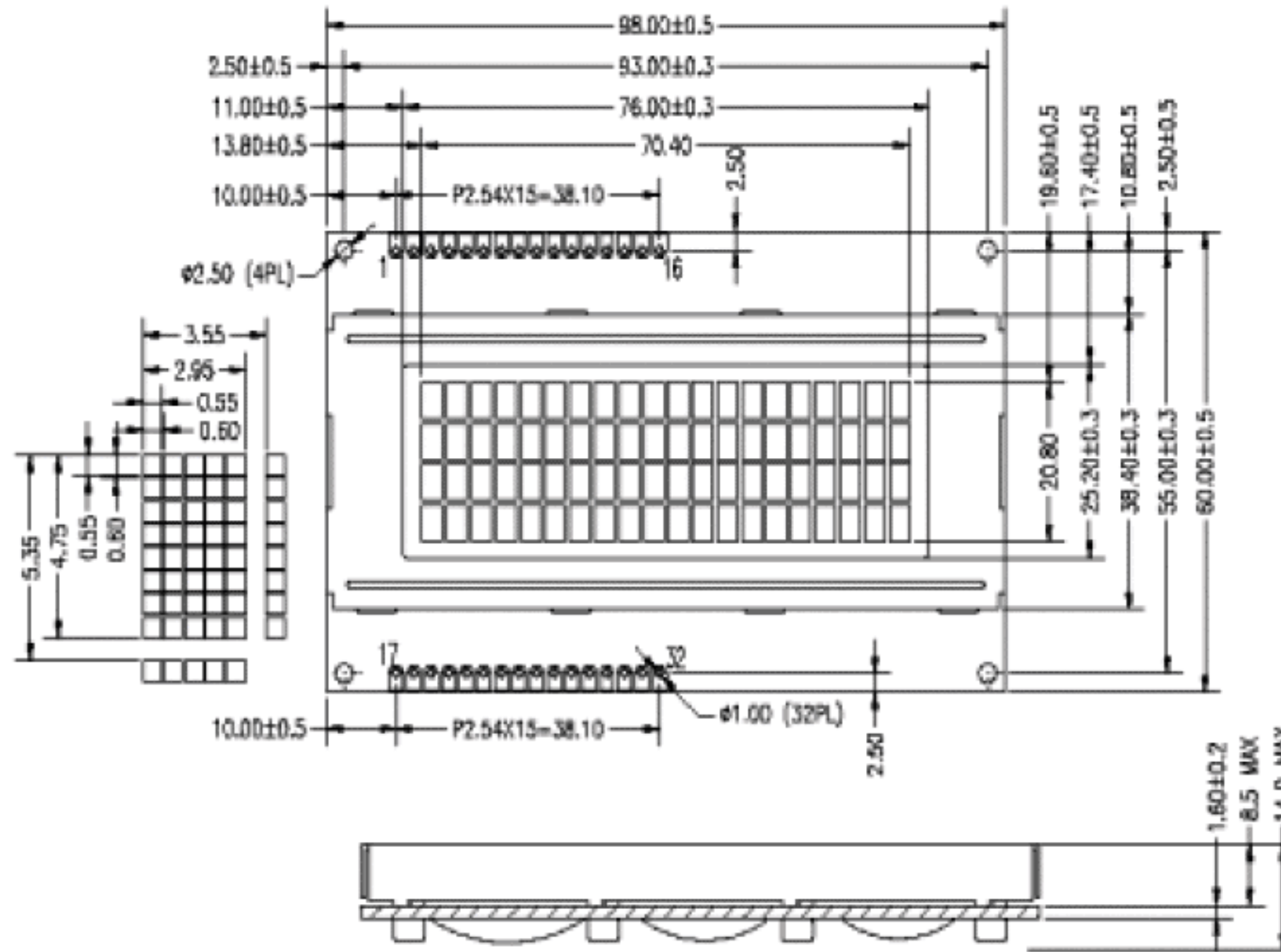


**PACKAGE DIMENSIONS:**

**3. Mechanical Specifications:**

ITEM	STANDARD VALUE	UNIT
NUMBER OF CHARACTERS	20 CHARACTERS X 4 LINES	
CHARACTER FORMAT	5 X 7 DOTS with CURSOR	
MODULE DIMENSION	98.0(W) X 60.0(H) X 13.0(T)	mm
EFFECTIVE DISPLAY AREA	76.0(W) X 25.2(H)	mm
CHARACTER SIZE	2.95(W) X 4.75(H)	mm
CHARACTER PITCH	3.55(W) X 5.35(H)	mm
DOT SIZE	0.55(W) X 0.55(H)	mm
DOT PITCH	0.60(W) X 0.60(H)	mm
APPROX WEIGHT	80G	g
LCD TYPE	STN ( Gray mode)	
DUTY AND BIAS	1/16 DUTY; 1/5 BIAS	
VIEWING DIRECTION	6:00	
BACK LIGHT	Yellow - Green LED	

**1. Type Number and Description**

Type Number:	CM204Z-SGT2LY
Description:	20 Characters x 4 Lines
LCD Panel:	STN ,Gray, Positive
Operating Temperature:	-20 °C – 70 °C
Storage Temperature:	-30 °C – 80 °C
Viewing angle:	6H
Backlight Voltage:	4.2V
BackLight Mode:	Bottom
BackLight Color:	Yellow-Green
Controller:	KS0066U-00 OR Equivalent
IC Package:	Bonding
Logic Voltage:	5.0V

**4.1 PINS DEFINITION**

PIN	SYMBOL	FUNCTION
1	17	Vss Power Supply(GND)
2	18	Vdd Power Supply(+5V)
3	19	Vo Contrast Adjust
4	20	RS Instruction/Data Register Select
5	21	R/W L: Write ; H: Read
6	22	E Enable Signal
7-14	23-30	DB0-DB7 Data Bus Line
15	31	A Power Supply for LED B/L(+)
16	32	K Power Supply for LED B/L(-)

**6.1 Electrical Characteristics at Ta=25 deg C, Vdd = 5V +/- 5%**

ITEM	SYMBOL	CONDITION	MIN	TY P	MAX	UNIT
Supply Voltage (logic)	Vdd-Vs	-	4.5	5	5.5	V
Supply Voltage (LCD)	Vdd-V0	Vdd = 5V	4.3	4.7	4.8	V
Input signal voltage (for E, DB0-7,R/W,RS)	V-ih	"H" level	2.2	-	Vdd	V
	V-il	"L" level	0	-	0.6	V
Supply Current (logic)	Icc	-	-	1	1.2	mA
Supply Current (LCD)	Io	-	0.15	0.2 2	0.27	mA
Supply Voltage (LED)	V-bl	see note 1	3.9	4.1	4.3	V
Supply Current (LED)	I-bl	see note 1	-	240	-	mA

**5.1 Electrical Maximum Ratings (Ta=25deg C)**

ITEM	SYMBOL	CONDITION	MIN	MAX	UNIT
Supply Voltage (Logic)	Vdd - Vss	-	0	7.0	V
Supply Voltage (LCD Drive)	Vdd - V0	-	0	11.5	V
Input Voltage	Vi	-	-0.3	Vdd +0.3	V