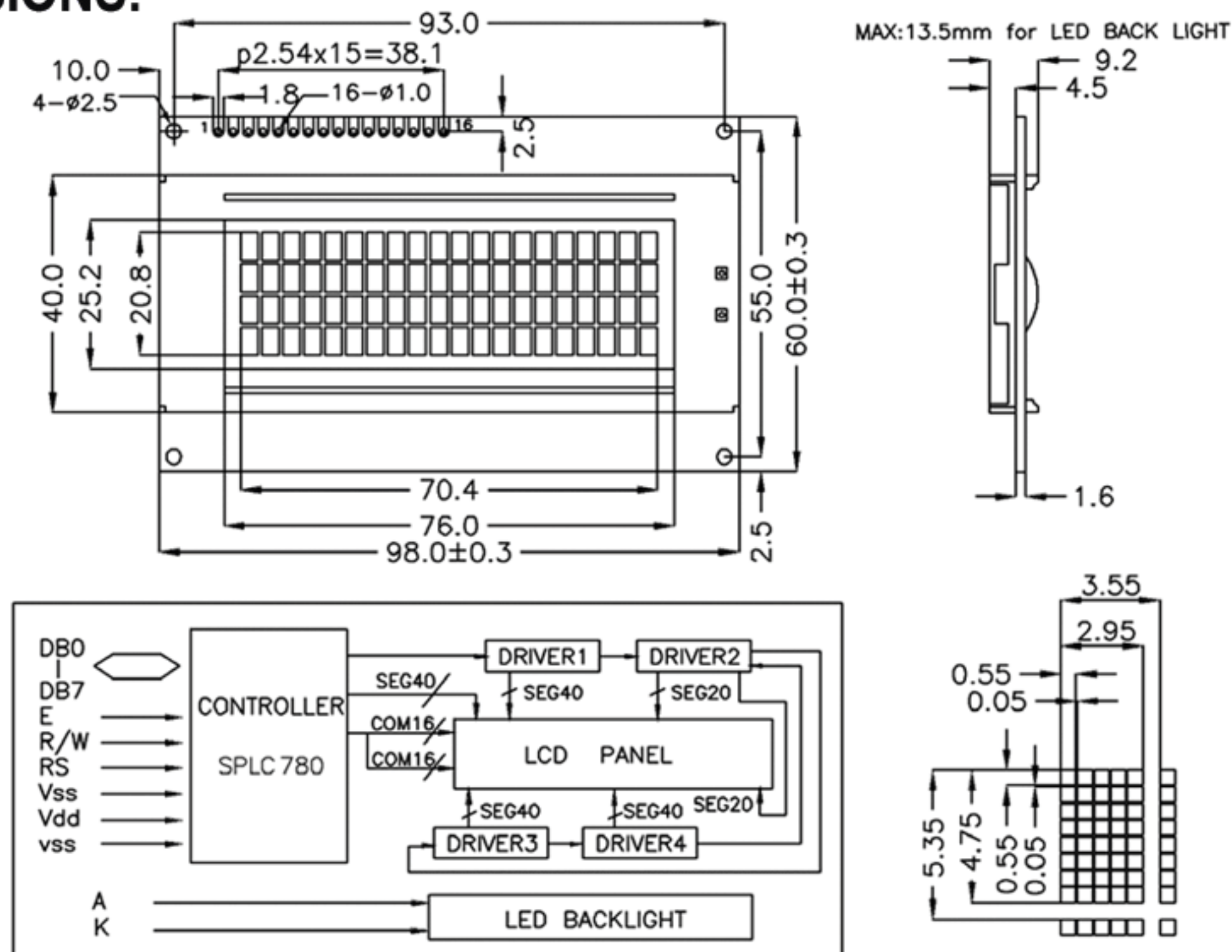


**PACKAGE DIMENSIONS:**


| MECHANICAL SPECIFICATIONS |                           |      |
|---------------------------|---------------------------|------|
| ITEM                      | SPECIFICATION             | UNIT |
| Overall Size              | 98.0Wx60.0Hx9.2T(BL13.5T) | mm   |
| Viewing Area              | 76.0Wx25.2H               | mm   |
| Character Number          | 20Wx4H                    |      |
| Character Size            | 2.95Wx4.75H               | mm   |
| Character Pitch           | 3.55Wx5.35H               | mm   |
| Dot Size                  | 0.55Wx0.55H               | mm   |

| PIN ASSIGNMENT |         |                                  |
|----------------|---------|----------------------------------|
| PIN            | SYMBOL  | FUNCTION                         |
| 1              | Vss     | Power Supply(GND)                |
| 2              | Vdd     | Power Supply(+5V)                |
| 3              | Vo      | Contrast Adjust                  |
| 4              | RS      | Instruction/Data Register Select |
| 5              | R/W     | Data Read/Write                  |
| 6              | E       | Enable Signal                    |
| 7-14           | DB0-DB7 | Data Bus Line                    |
| 15             | A       | Power Supply for LED BL(+)       |
| 16             | K       | Power Supply for LED B/L(-)      |

| ABSOLUTE MAXIMUM RATINGS |        |          |         |      |
|--------------------------|--------|----------|---------|------|
| ITEM                     | SYMBOL | MIN.     | MAX.    | UNIT |
| Power Supply (Logic)     | Vdd    | -0.3     | 7.0     | V    |
| Power Supply (LCD)       | Vo     | Vdd-15.0 | Vdd+0.3 | V    |
| Input Voltage            | Vi     | -0.3     | Vdd     | V    |
| Operating Temperature    | Topr   | 0        | 50      | °C   |
| Storage Temperature      | Tstg   | -20      | 70      | °C   |

| ELECTRICAL CHARACTERISTICS(Ta=25°C, Vdd=5V±0.25V) |        |      |      |      |      |
|---|--------|------|------|------|------|
| ITEM  | SYMBOL | MIN. | MIN. | MAX. | UNIT |
| Power Supply(Logic)                               | Vdd    | 4.5  | 5.0  | 5.5  | V    |
| Supply Current                                    | Idd    | 2.0  | —    | —    | mA   |
| LCD Driving Voltage                               | Vdd-Vo | —    | —    | 13.0 | V    |
| Input Voltage "H"                                 | Vih    | 2.2  | —    | Vdd  | V    |
| Input Voltage 'L'                                 | Vil    | —    | —    | 0.6  | V    |
| Output Voltage "H"                                | Voh    | 2.4  | —    | —    | V    |
| Output Voltage 'L'                                | Vol    | —    | —    | 0.4  | V    |

| LED BACKLIGHT SPECIFICATIONS |       |                     |        |
|------------------------------|-------|---------------------|--------|
| ITEM                         | TYP.  | ITEM                | TYP.   |
| Forward Voltage              | 4.2V  | Power Dissipation   | 1580mW |
| Forward Current              | 375mA | Emission Wavelength | 570nm  |