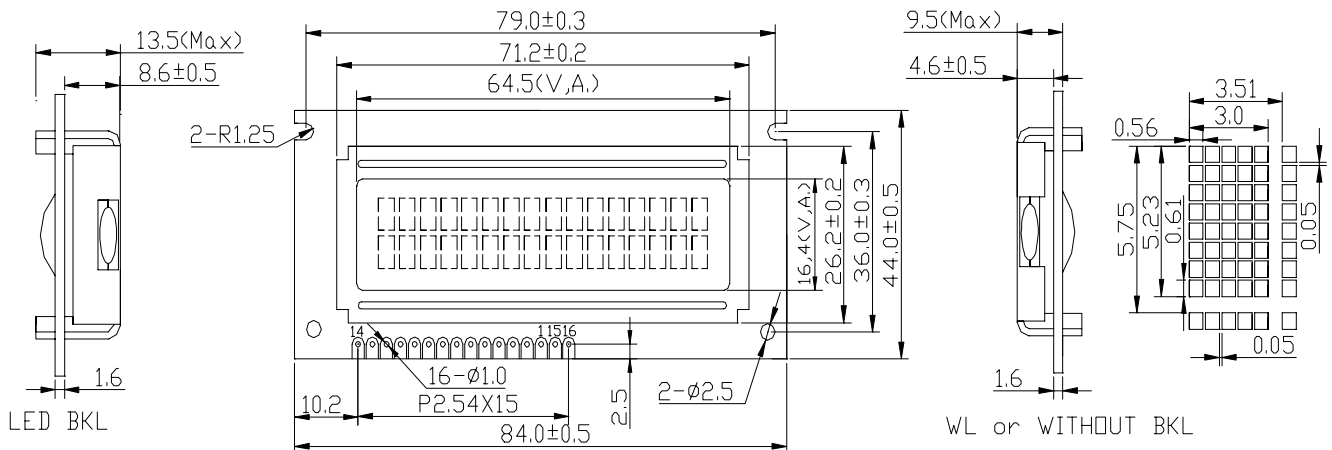
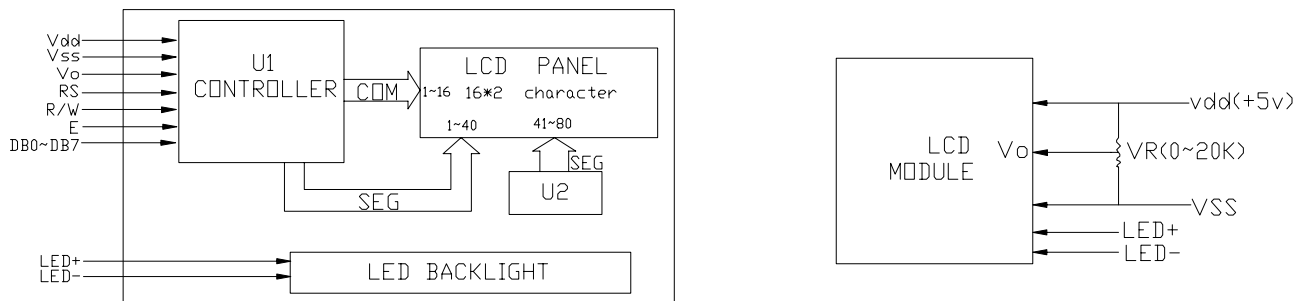


● OUTLINE DIMENSION



● BLOCK DIAGRAM & POWER SUPPLY



● MECHANICAL SPEC.&FEATURES

| Item | Dimension(mm) |
|----------------------|--------------------|
| Module Size(WxHxT) | 84.0x44.0x9.5/13.5 |
| Viewing Area(WxH) | 64.5x16.4 |
| Dot Size(WxH) | 0.56x0.61 |
| Dot Pitch(WxH) | 0.61x0.66 |
| Character Size (WxH) | 3.00x5.23 |
| Character Pitch(WxH) | 3.51x5.75 |

| Features | |
|----------------|---------------------------------------|
| LC Fluid | TN,STN(Yellow-green,Gray,Blue),FSTN |
| Polarizer | Reflective,Transflective,Transmissive |
| View Angle | 6:00 o'clock or 12:00 o'clock |
| Display Type | Positive or Negative |
| Backlight | LED(Optional) |
| Operating Temp | 0°C ~ 50°C or -20°C ~ 70°C |
| Controller | S6A0069 or Equivalent |

● INTERFACE PIN CONNECTIONS

| Pin No. | Symbol | Function |
|---------|--------|--|
| 1 | Vss | Ground for logic |
| 2 | Vdd | Power supply for logic |
| 3 | Vo | Power supply for LCD |
| 4 | RS | Register selection(H:Data,L:Instruction) |
| 5 | R/W | Read/Write selection(H:R,L:W) |

| Pin No. | Symbol | Function |
|---------|---------|----------------|
| 6 | E | Enable signal |
| 7~14 | DB0~DB7 | Data bus lines |
| 15 | A | BKL+ |
| 16 | K | BKL- |

● ELECTRICAL CHARACTERISTICS

| Item | Symbol | Test Condition | Min | Typ. | Max. | Unit |
|---------------------------|--------|-------------------|-----|------|------|------|
| Operating Voltage | Vdd | Ta=25°C | ... | 5.0 | ... | V |
| Operating Voltage for LCD | Vlcd | Ta=25°C | ... | 4.5 | ... | V |
| Supply Current | Idd | Ta=25°C, Vdd=5.0V | ... | 2.0 | 3.0 | mA |
| Supply Voltage for LED | Vf | Ta=25°C, R=6.8Ω | ... | 4.2 | ... | V |
| Supply Current for LED | If | Ta=25°C, Vf=4.2V | ... | 190 | ... | mA |