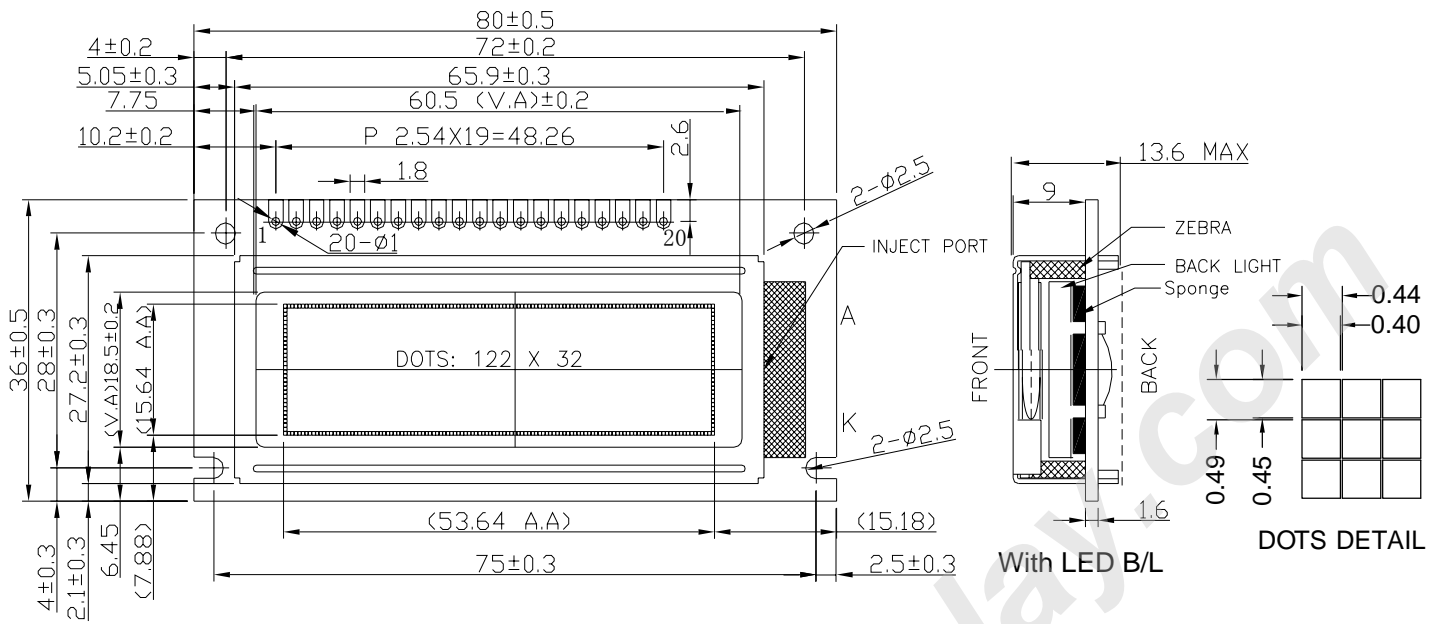


Dimension Drawing



TOLERANCES UNLESS OTHERWISE STATED
 X.X ±0.20 X.XX ±0.10 UNIT: mm

Feature:

1. 122 x 32 dots graphic display
2. Built-in controller(SBN1661G or equivalent)
3. +5V power supply(also available for +3.3V)
4. 1/32 Duty cycle
5. STN or FSTN Mode
6. Match all kind colors of LED back light
7. ROHS compliant

Mechanical Data

| Item | Standard | Unit |
|------------------|-------------|------|
| Module dimension | 80.0 x 36.0 | mm |
| Viewing area | 60.5 x 18.5 | mm |
| Mounting hole | 72.0 x 28.0 | mm |
| Dots size | 0.4 x 0.45 | mm |

Interface Pin Connections

| PIN NO. | Symbol | Function |
|---------|--------|----------------------------|
| 1 | VSS | GND |
| 2 | VDD | +5V or +3.3V |
| 3 | V0 | Contrast adjustment |
| 4 | A0 | H → Data L → Instruction |
| 5 | CS1 | L → Chip1 Enable |
| 6 | CS2 | L → Chip2 Enable |
| 7 | NC/CL | NC or External clock 2KHz |
| 8 | NC/E | NC or Enable signal |
| 9 | R/W | H :Read data L :Write data |
| 10 | DB0 | H/L Data bus line |
| 11 | DB1 | H/L Data bus line |
| 12 | DB2 | H/L Data bus line |
| 13 | DB3 | H/L Data bus line |
| 14 | DB4 | H/L Data bus line |
| 15 | DB5 | H/L Data bus line |
| 16 | DB6 | H/L Data bus line |
| 17 | DB7 | H/L Data bus line |
| 18 | REST | H → L Rest the LCM |
| 19 | A | Power supply for B/L(LED+) |
| 20 | K | Power supply for B/L(LED-) |

Absolute Maximum Rating

| Item | Symbol | Standard | | | Unit |
|---------------|---------|----------|-----|-----|------|
| | | Min | Typ | Max | |
| Power supply | VDD-VSS | -0.3 | --- | 7.0 | V |
| Input voltage | VI | -0.3 | --- | VDD | |

Electronical Characteristics

| Item | Symbol | Condition | Standard | | | Unit | |
|--|-----------------|--------------------------------|----------|------|-----|------|----|
| | | | Min | Typ | Max | | |
| Input voltage | VDD | +5.0V | 4.5 | 5.0 | 5.5 | V | |
| | | +3.3V | 2.7 | 3.3 | 4.5 | | |
| Supply current | I _{DD} | VDD=5V | ---- | 0.6 | 0.8 | mA | |
| Recommended LCD driving voltage for normal temp version module | VDD-V0 (VDD=5V) | -20 °C | 4.9 | 5.2 | 5.5 | V | |
| | | 0 °C | 4.5 | 4.8 | 5.1 | | |
| | | 25 °C | 4.1 | 4.5 | 4.8 | | |
| | | 50 °C | 3.8 | 4.1 | 4.4 | | |
| LED forward voltage | V _F | 25 °C | ---- | 3.0 | 3.3 | V | |
| LED forward current | I _F | 25 °C | Array | ---- | 120 | ---- | mA |
| | | | Edge | ---- | 30 | 40 | |
| EL power supply | I _{EL} | V _{EL} =110V AC 400Hz | ---- | ---- | 5.0 | mA | |