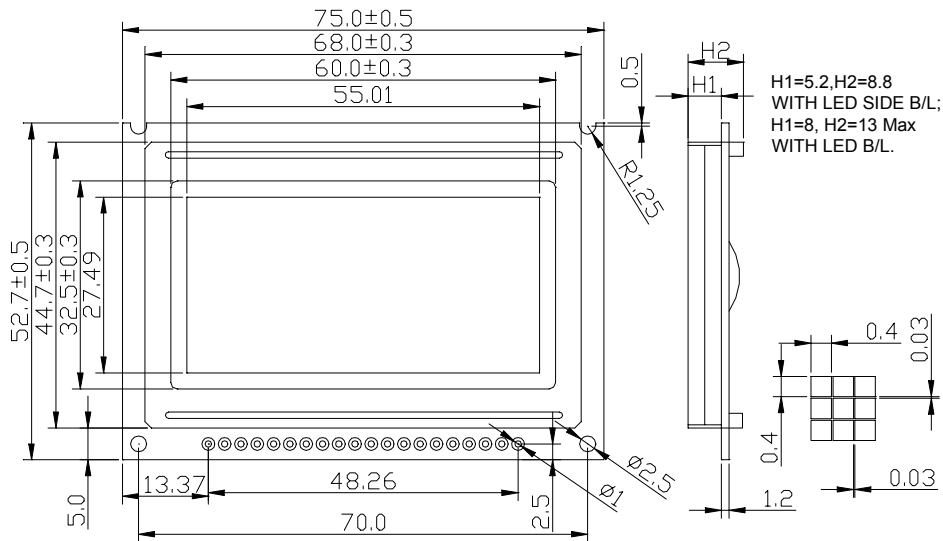


WG12864D

128x64
1/64 Duty, 1/9 Bias

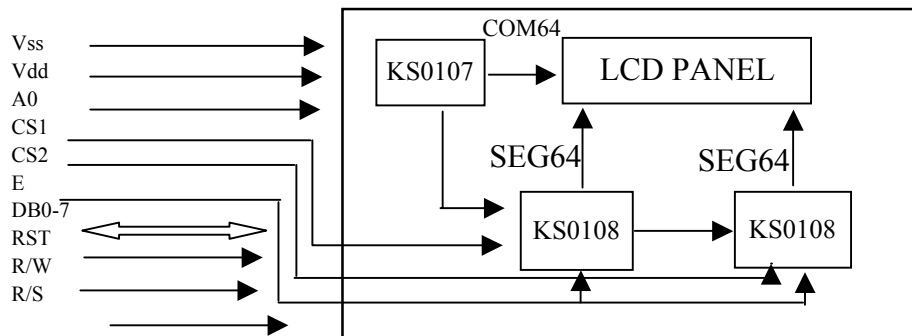
1. External Dimension



2. Pin Table

| | | | | | | | | | | | | | |
|-----|-----|----|-----|-----|-----|-----|-----|-----|-----|----|-----|------|------|
| 1 | 2 | 3 | 4 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| Vdd | Vss | V0 | DB0 | DB7 | CS1 | CS2 | RST | R/W | R/S | E | Vee | LED+ | LED- |

3. Block Diagram



4. Electrical Characteristics (Ta=25°C, Vdd=5.0V±0.25V)

| Item | Symbol | Test Condition | Min. | Typ. | Max. | Unit |
|---------------------------|--------|----------------|---------|------|------|------|
| Input High Voltage | Vih | - | 0.7Vdd | | Vdd | V |
| Input Low Voltage | Vil | - | 0 | | 0.8 | V |
| Output High Voltage | Voh | -I OH=0.2mA | Vdd-0.4 | | | V |
| Output Low Voltage | Vol | I ol=1.2mA | | | 0.4 | V |
| Supply Current | Idd | Vdd=5.0V | | 4 | | mA |
| Operating Voltage for LCD | Vdd-V0 | STN | | 7.8 | | V |
| | | TN | | - | | V |