

Feature

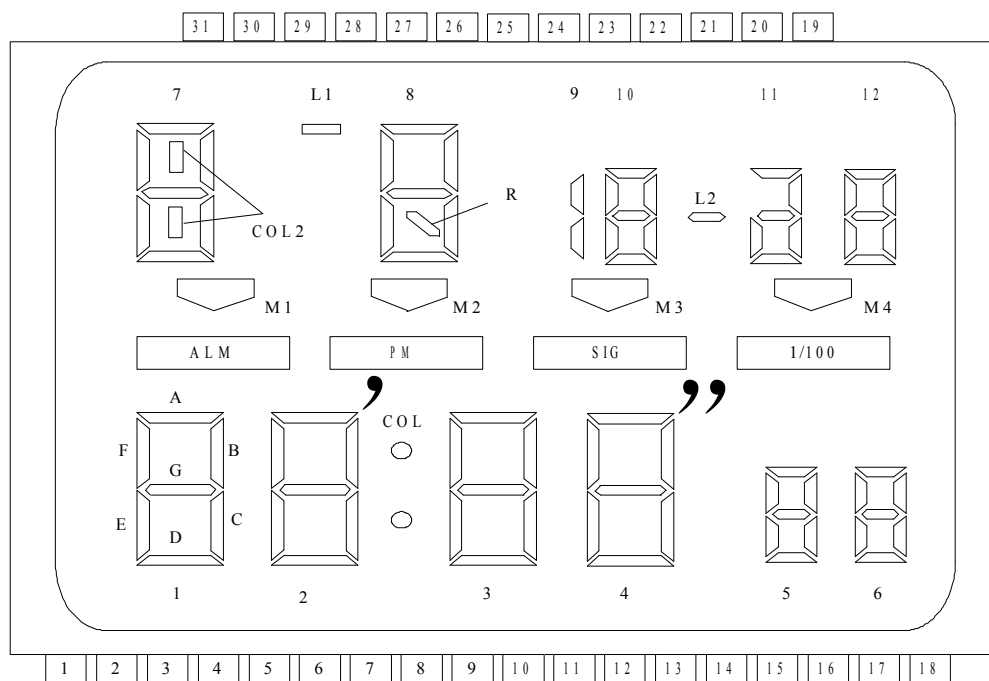
特点

- ◆3V Lithium Battery Operation
- ◆Clock with Month, Date, Hour, Minute, Second, Weekday
- ◆Alarm & Hourly chime
- ◆Sport Timer(1/100Sec)
- ◆12H/24H cycle Selectable
- ◆Very Low Power Dissipation
- ◆32768 Hz crystal controlled operation
- ◆Debounce circuit on switch input
- ◆Protection against static discharge
- ◆Built - in EL Driver
- ◆3V 锂电池供电
- ◆可显示月、日、时、分、秒、星期
- ◆响闹、整点响闹功能
- ◆秒表计时
- ◆可选 12/24 小时制
- ◆低功耗
- ◆32768 Hz 晶振
- ◆开关输入防弹跳
- ◆带静电保护
- ◆内建 EL 背光驱动

ELECTRICAL CHARACTERISTICS 电气特性

| Characteristics | | Sym | Min | Typ | Max | Unit | Remarks |
|---------------------------|--------|------|---------|-------|---------|------|----------|
| Operating Voltage | 工作电压 | VDD | 2.3 | 3.0 | 3.6 | V | - |
| Quiescent Current | 静态电流 | ISB | - | 1.0 | 2 | uA | No Load |
| Operating Current | 工作电流 | IOP | - | - | 6 | uA | - |
| Input High Voltage | 输入高电压 | VIH | VDD-0.3 | - | VDD | V | - |
| Input Low Voltage | 输入低电压 | VIL | VSS | - | VSS+0.3 | V | - |
| Switch Activation Current | 按键开关电流 | ISW | - | - | 2 | uA | VIN=VDD |
| Alarm Drive Current | 闹钟驱动电流 | IALA | 0.5 | 2 | - | mA | - |
| Oscillation Frequency | 振荡频率 | FOSC | - | 32768 | - | Hz | - |
| LCD Frequency | LCD 频率 | FLCD | - | 43 | - | Hz | - |
| Time Stability | 时间稳定度 | TSTB | - | 1 | 3 | ppm | 2.5~3.5V |

LCD 字形显示

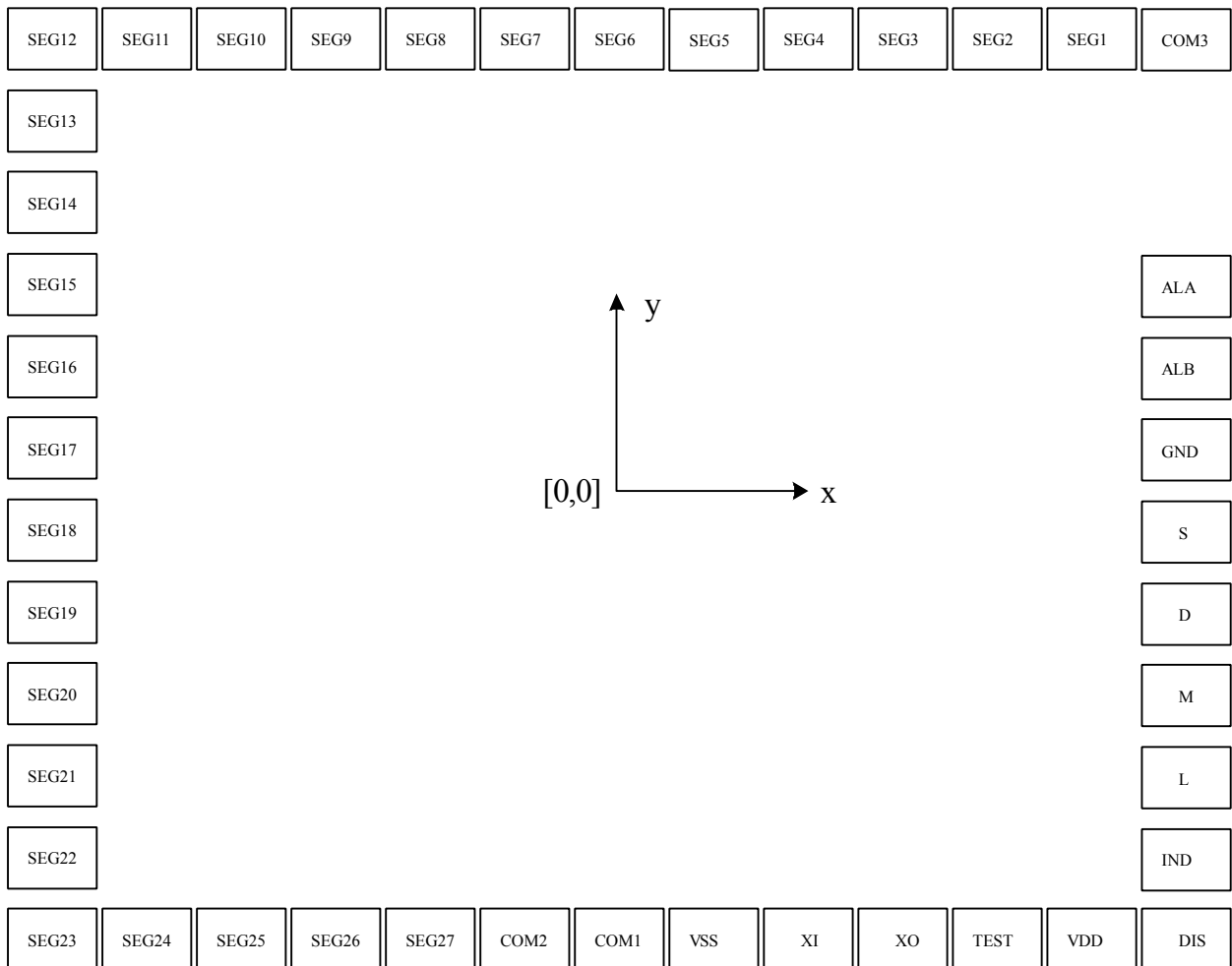


LCD 字段分配

| | COM1 | COM2 | COM3 |
|-------|------|------|-------|
| SEG1 | F1 | E1 | A1/D1 |
| SEG2 | B1 | G1 | C1 |
| SEG3 | F2 | E2 | D2 |
| SEG4 | A2 | G2 | C2 |
| SEG5 | B2 | COL | E3 |
| SEG6 | F3 | G3 | A3/D3 |
| SEG7 | B3 | C3 | E4 |
| SEG8 | F4 | G4 | D4 |
| SEG9 | A4 | B4 | C4 |
| SEG10 | F5 | E5 | D5 |
| SEG11 | A5 | G5 | C5 |
| SEG12 | B5 | F6 | E6 |
| SEG13 | A6 | G6 | D6 |

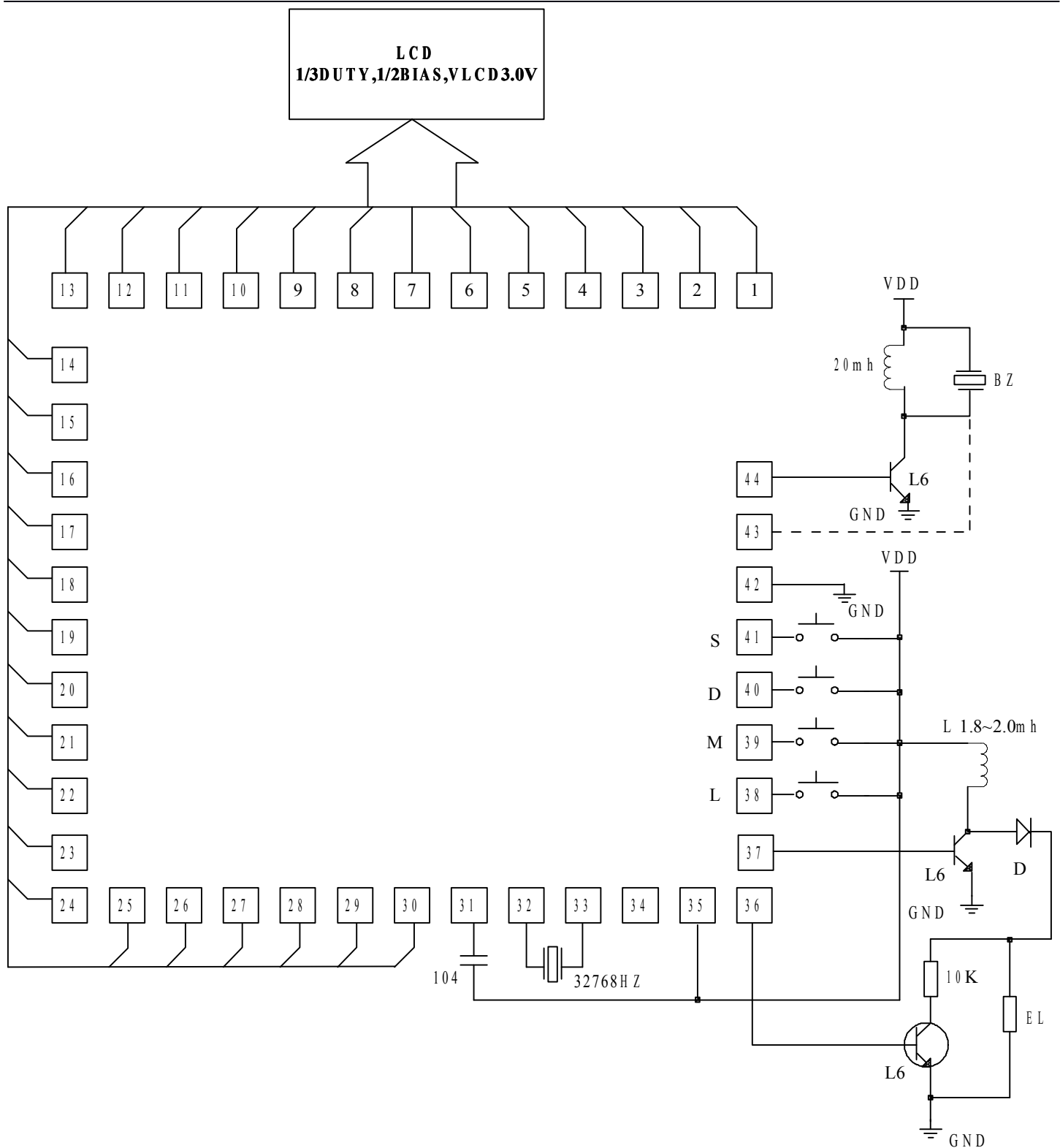
| | COM1 | COM2 | COM3 |
|-------|-----------|-------|-------------|
| SEG14 | D12 | B6 | C6 |
| SEG15 | C12 | G12 | B12 |
| SEG16 | E12 | F12 | A12 |
| SEG17 | D10 | C11 | B11 |
| SEG18 | C10 | E11 | A11/D11/G11 |
| SEG19 | L2 | B10 | A10 |
| SEG20 | E10 | G10 | F10 |
| SEG21 | D8 | C8 | B9/C9 |
| SEG22 | R8 | G8 | B8 |
| SEG23 | ' / ''/M4 | E8/F8 | A8 |
| SEG24 | D7 | C7 | L1 |
| SEG25 | G7 | B7 | A7 |
| SEG26 | E7 | COL2 | F7 |
| SEG27 | M3 | M2 | M1 |

PAD Diagram 脚位图



Pad Location

| Pad No | Name | X | Y |
|--------|-------|------|------|
| 1 | COM3 | 720 | 660 |
| 2 | SEG1 | 600 | 660 |
| 3 | SEG2 | 480 | 660 |
| 4 | SEG3 | 360 | 660 |
| 5 | SEG4 | 240 | 660 |
| 6 | SEG5 | 120 | 660 |
| 7 | SEG6 | 0 | 660 |
| 8 | SEG7 | -120 | 660 |
| 9 | SEG8 | -240 | 660 |
| 10 | SEG9 | -360 | 660 |
| 11 | SEG10 | -480 | 660 |
| 12 | SEG11 | -600 | 660 |
| 13 | SEG12 | -720 | 660 |
| 14 | SEG13 | -720 | 540 |
| 15 | SEG14 | -720 | 420 |
| 16 | SEG15 | -720 | 300 |
| 17 | SEG16 | -720 | 180 |
| 18 | SEG17 | -720 | 60 |
| 19 | SEG18 | -720 | -60 |
| 20 | SEG19 | -720 | -180 |
| 21 | SEG20 | -720 | -300 |
| 22 | SEG21 | -720 | -420 |
| 23 | SEG22 | -720 | -540 |
| 24 | SEG23 | -720 | -660 |
| 25 | SEG24 | -600 | -660 |
| 26 | SEG25 | -480 | -660 |
| 27 | SEG26 | -360 | -660 |
| 28 | SEG27 | -240 | -660 |
| 29 | COM2 | -120 | -660 |
| 30 | COM1 | 0 | -660 |
| 31 | VSS | 120 | -660 |
| 32 | XI | 240 | -660 |
| 33 | XO | 360 | -660 |
| 34 | TEST | 480 | -660 |
| 35 | VDD | 595 | -660 |
| 36 | DIS | 720 | -660 |
| 37 | IND | 720 | -534 |
| 38 | L | 720 | -414 |
| 39 | M | 720 | -294 |
| 40 | D | 720 | -174 |
| 41 | S | 720 | -54 |
| 42 | GND | 720 | 66 |
| 43 | ALB | 713 | 193 |
| 44 | ALA | 720 | 321 |



注:

- 1) IC 衬底接 VDD。
- 2) 建议分别在 IND、DIS 与 L6 基极串联电阻 (1K~5K)，可改变 EL 输出功率，建议画 PCB 时，预留位置可作选择；调整 EL 电感的电感量和内阻可调节 EL 亮度。
- 3) 蜂鸣片并联电感值 20mh 左右，内阻 150~250 Ω。

SETTING SEQUENCE AND SWITCH OPERATION

