

DESCRIPTION

The SDUS20 is a CMOS 6 function watch circuit with EL-LED alarm and auto-ranging chronograph function; designed for a 6 digit duplexes liquid crystal display, 7-day mark, date mark, AM / PM mark and colon

FEATURES

- ◆ Split operative stopwatch (Accurate to 1/100 second)
- ◆ Hour, Minute, Second, Month and Date normal display
- ◆ 6 digit chronograph : Auto ranging after 30 minutes to hour, minute, second from minute, second, 1/100 second
- ◆ Alarm function
- ◆ 4 to 5 minutes snooze
- ◆ Chime on every hour
- ◆ User selectable 12/24 format & 4 year calendar
- ◆ One touch correction of time error within ± 30 seconds
- ◆ Oscillator built-in capacitor
- ◆ Direct drive of piezo buzzer
- ◆ Backlight(EL) control output
- ◆ Six LED flash control output

特點

- ◆ 跑表有分段計時功能 (準確至 1/100 秒)
- ◆ 可顯示時、分、秒、月、日及星期
- ◆ 6 位計時器：以分、秒、1/100 秒顯示方式，計滿 30 分後自動轉換至時、分、秒
- ◆ 響鬧功能
- ◆ 具有 4~5 分鐘再鬧功能
- ◆ 整點響鬧
- ◆ 可選用 12 或 24 小時制；4 年日曆
- ◆ 按鍵一次可校正 ± 30 秒時間誤差
- ◆ 振蕩器內置電容
- ◆ 可直接驅動壓電蜂鳴片
- ◆ 背光(EL)控制輸出
- ◆ 六燈順閃控制輸出

ABSOLUTE MAXIMUM RATING

($T_A=25^{\circ}\text{C}$)

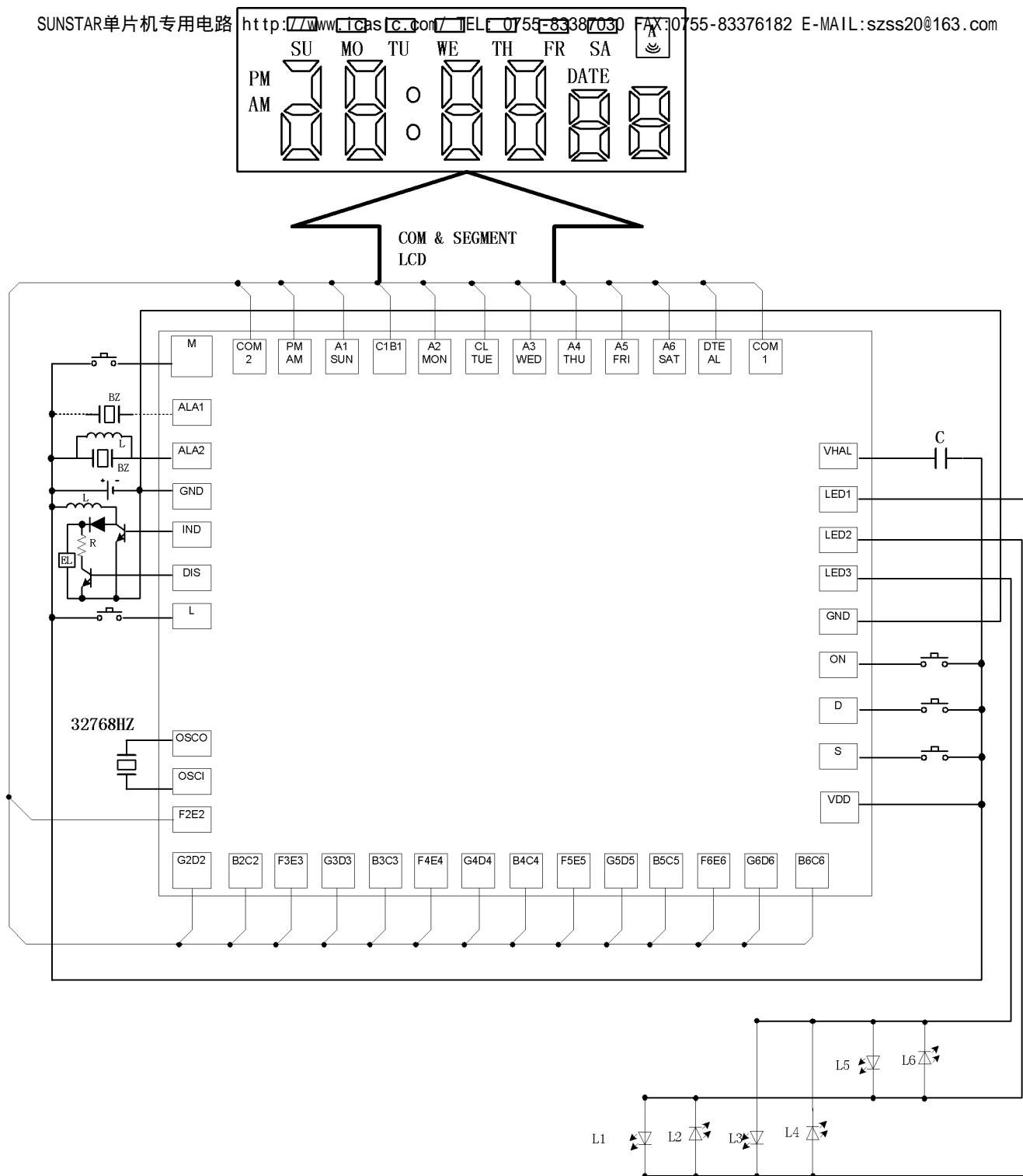
Characteristic	Symbol	Value	Unit
Supply Voltage	V_{SS}	-0.3 ~ +4.0	V
Operating Temperature	T_{OPR}	0 ~ +60	$^{\circ}\text{C}$
Storage Temperature	T_{STG}	-25 ~ +75	$^{\circ}\text{C}$

ELECTRICAL CHARACTERISTICS 電特性

Characteristics	Sym	Min	Typ	Max	Unit	Remarks
Operating Voltage 工作電壓	V_{DD}	1.5	3.0	4.0	V	-
Quiescent Current 靜態電流	I_{SB}	-	1.5	2.5	μA	No Load
Input High Voltage 輸入高電壓	V_{IH}	$V_{DD}-0.3$	-	V_{DD}	V	-
Input low Voltage 輸入低電壓	V_{IL}	V_{SS}	-	$V_{SS}+0.3$	V	-
Switch Activation Current 按鍵開關消耗電流	I_{SW}	-	-	6.0	μA	$V_{IN}=V_{DD}$
Oscillating Start Voltage 振蕩起振電壓	V_{OSC}	-	-	1.2	V	Within 3 seconds
Alarm Drive Current 鬧鈴驅動電流	I_{ALA}	5	10	-	mA	$V_{ALA}=0.5\text{V}$ $PAD=7$
Oscillation Frequency 振蕩頻率	F_{OSC}	-	32768	-	Hz	-
LCD Frequency LCD 頻率	F_{LCD}	-	32	-	Hz	-
Time Stability 時間穩定度	T_{stb}	-	1	-	ppm	$V_{DD}=3.0\text{V}$
Operating Current 工作電流	I_{DD}	-	6	9	mA	EL

RECOMMEND APPLICATION CIRCUIT 1

SUNSTAR单片机专用电路 <http://www.icasic.com/> TEL: 0755-83387030 FAX: 0755-83376182 E-MAIL: szss20@163.com

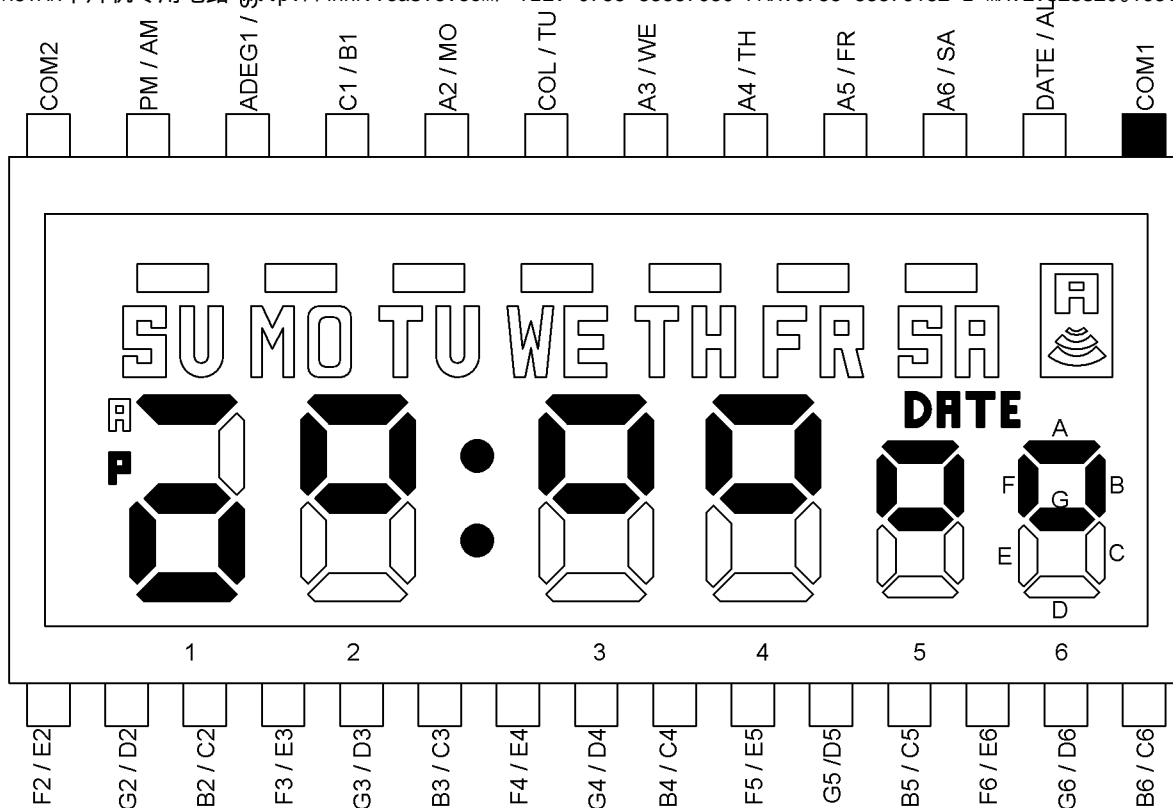


Note :

1. 芯片底部接 VDD;
2. $C=0.1 \mu F$;
3. (EL)L=2.0mH, R=10K Ω ; (AL)L=20mH;
4. ON 触发 L1 到 L6 循环闪 16 圈, 闪动频率 2.66Hz, (L1 L2 L3 L4 L5 L6 L1...);

LCD FORMAT

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ALARM OUTPUT WAVEFORMS

