

# 深圳市丽晶微电子科技有限公司

SHEN ZHEN ELITE CHIP MICROCUIT CO.,LTD

## 9E80-5177 60秒延时 IC 芯片

- 1、芯片工作电压，DC2.2-5.5V。
- 2、两路电平信号输出，一路输出低电平，一路输出高电平，上电不工作，一个按键控制，触发一下，两路信号同步工作，延时 60 秒，时间到自动停止工作，重新触发重新工作 60 秒。工作中触发无效。
- 3、要求静态低功耗。

### 3.1 ABSOLUTE MAXIMUM RATING

Supply voltage (Vdd).....	- 0.3V ~ 6.0V
Input in voltage (Vin).....	Vss – 0.2V ~ Vdd + 0.2V
Operating ambient temperature (Topr)	
EC2501DS, .....	-20℃ ~ + 85℃
Storage ambient temperature (Tstor) .....	-40℃ ~ + 125℃

### 3.2 DC CHARACTERISTIC

(All of voltages refer to Vss, Vdd = 5.0V, Fosc = 4MHz, Fcpu=1MHz, ambient temperature is 25°C unless otherwise note.)

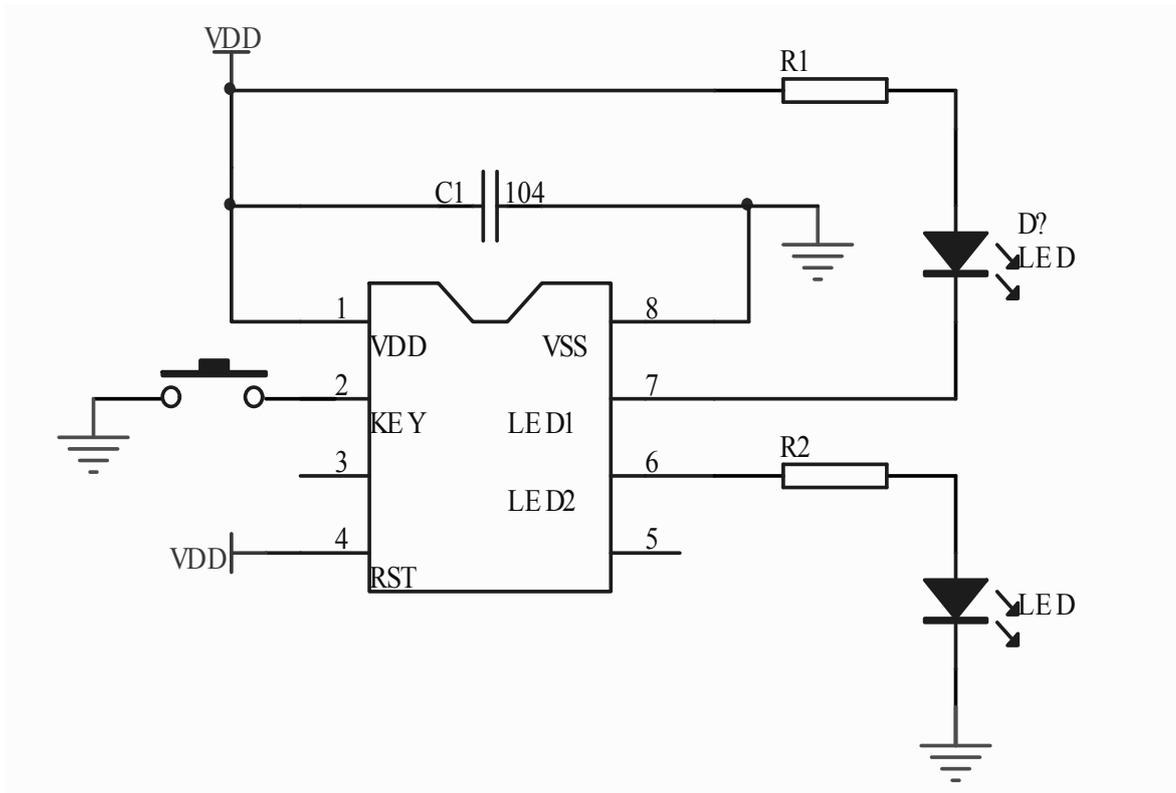
PARAMETER	SYM.	DESCRIPTION	MIN.	TYP.	MAX.	UNIT	
Operating voltage	Vdd	Normal mode, Vpp = Vdd, 25°C, Fcpu = 1MHz	2.2	-	5.5	V	
RAM Data Retention voltage	Vdr		1.5	-	-	V	
*Vdd rise rate	Vpor	Vdd rise rate to ensure internal power-on reset	0.05	-	-	V/ms	
Input Low Voltage	ViL1	All input ports	Vss	-	0.3Vdd	V	
	ViL2	Reset pin	Vss	-	0.2Vdd	V	
Input High Voltage	ViH1	All input ports	0.7Vdd	-	Vdd	V	
	ViH2	Reset pin	0.8Vdd	-	Vdd	V	
Reset pin leakage current	Ilekg	Vin = Vdd, 25°C	-	-	2	uA	
I/O port input leakage current	Ilekg	Pull-up resistor disable, Vin = Vdd	-	-	2	uA	
I/O port pull-up resistor	Rup	Vin = Vss, Vdd = 3V	100	200	300	KΩ	
		Vin = Vss, Vdd = 5V	50	100	180		
I/O output source current sink current	IoH	Vop = Vdd – 0.5V	8	15	-	mA	
	IoL	Vop = Vss + 0.5V	8	15	-		
*INTn trigger pulse width	Tint0	INT0 interrupt request pulse width	2/fcpu	-	-	cycle	
Supply Current	Idd1	Run Mode (No loading, Fcpu = Fosc/4)	Vdd= 5V, 4Mhz	-	3	5	mA
		Vdd= 3V, 4Mhz	-	1.5	2	mA	
	Idd2	Slow Mode (Internal low RC, Stop high clock)	Vdd=5V, ILRC 32Khz	-	20	40	uA
			Vdd=3V, ILRC 16Khz	-	5	10	uA
	Idd3	Sleep Mode	Vdd= 5V, 25°C	-	0.8	1.6	uA
			Vdd= 3V, 25°C	-	0.7	1.4	uA
	Idd4	Green Mode (No loading, Fcpu = Fosc/4, Watchdog Disable)	Vdd= 5V, 4Mhz	-	0.6	1.2	mA
			Vdd= 3V, 4Mhz	-	0.25	0.5	mA
Vdd=5V, ILRC 32Khz			-	15	30	uA	
		Vdd=3V, ILRC 16Khz	-	3	6	uA	
Internal High Oscillator Freq.	Fihrc	Internal High RC (IHRC) 25°C, Vdd= 5V,Fcpu = 1MHz	15.68	16	16.32	Mhz	
LVD Voltage	Vdet0	Low voltage reset level, -20°C ~ + 85°C	1.6	2.0	2.2	V	
	Vdet1	Low voltage reset/indicator level. Fcpu = 1 MHz, -20°C ~ + 85°C	1.8	2.4	3	V	
	Vdet2	Low voltage reset/indicator level. Fcpu = 1 MHz, -20°C ~ + 85°C	2.5	3.6	4.5	V	
External oscillator (32KHz) match capacitor	C32K	Capacitor selection for crystal oscillator in 32KHz	20	27	33	pF	

“\*” These parameters are for design reference, not tested.

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## 4、参考电路图：



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