

EVVOSEMI[®]

THINK CHANGE DO



ESD



TVS



MOS



LDO



Diode



Sensor



DC-DC

Product Specification

▶ Domestic	Part Number	74HC4060D
▶ Overseas	Part Number	74HC4060D
▶ Equivalent	Part Number	74HC4060D

EV is the abbreviation of name EVVO

2.2、引脚排列

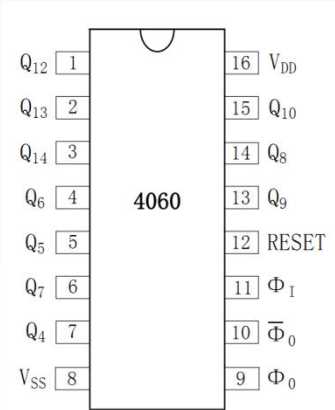


图 3、引脚排列图

2.3、引脚说明

引脚	符 号	功 能	引脚	符 号	功 能
1	Q12	计数器第12 位输出	9	$\Phi 0$	振荡器驱动输出端1
2	Q13	计数器第13 位输出	10	$\Phi 0$	振荡器驱动输出端2
3	Q14	计数器第14 位输出	11	ΦI	振荡器驱动输入端
4	Q6	计数器第6 位输出	12	RESET	复位，高电平复位
5	Q5	计数器第5 位输出	13	Q9	计数器第9 位输出
6	Q7	计数器第7 位输出	14	Q8	计数器第8 位输出
7	Q4	计数器第4 位输出	15	Q10	计数器第10 位输出
8	VSS	地	16	VDD	电源

3、电特性

3.1、极限参数 (GND=0V)

参 数 名 称	符 号	条 件	最小	最大	单 位
电源电压	V_{CC}		-0.5	+17	V
输入电压范围	V_{Ik}		$V_{DD}-0.5V$	$V_{DD}+0.5V$	mA
输入电流	I_{ik}	$V_o < -0.5V$ or $V_o > V_{CC} + 0.5V$	-	10	mA
贮存温度	T_{stg}		-65	+150	°C
功耗	P_{tot}	DIP	-	750	mW
		SOP	-	500	
焊接温度	T_L	10 秒	DIP	245	°C
			SOP	250	

注：1. DIP16封装：温度高于70°C时，温度每升高1°C，额定功耗减12mW。

2. SOP16封装：温度高于70°C时，温度每升高1°C，额定功耗减少8mW。

3.2、推荐使用条件

参数名称		符号	最小	典型	最大	单位
电源电压		V_{CC}	2.0	5.0	17	V
输入电压		V_I	0	-	V_{CC}	V
输出电压		V_O	0	-	V_{CC}	V
工作环境温度		T_{amb}	-40		+85	°C
输入上升和 下降时间	$V_{CC}=2.0V$	$\Delta t/\Delta V$	-		625	ns/V
	$V_{CC}=4.5V$		-	1.67	139	ns/V
	$V_{CC}=6.0V$		-	-	83	ns/V

3.3、电气特性

3.3.1、直流参数 ($T_{amb} = 25^{\circ}C$, $GND=0V$)

参数名称	符号	测试条件			最小	典型	最大	单位
		$V_O (V)$	$V_{IN} (V)$	$V_O (V)$				
静态电流	I_{DD}	—	0,5	5	—	0.04	5	uA
		—	0,10	10	—	0.04	10	
		—	0,15	15	—	0.04	20	
		—	0,17	17	—	0.08	100	
输出低电平电流	I_{OL}	0.4	0,5	5	0.51	1	—	mA
		0.5	0,10	10	1.3	2.6	—	
		1.5	0,15	15	3.4	6.8	—	
输出高电平电流	I_{OH}	4.6	0,5	5	-0.51	-1	—	
		2.5	0,5	5	-1.6	-3.2	—	
		9.5	0,10	10	-1.3	-2.6	—	
		13.5	0,15	15	-3.4	-6.8	—	
输出低电平电压	V_{OL}	—	0,5	5	—	0	0.05	V
		—	0,10	10	—	0	0.05	
		—	0,15	15	—	0	0.05	
输出高电平电压	V_{OH}	—	0,5	5	4.95	5	—	
		—	0,10	10	9.95	10	—	
		—	0,15	15	14.95	15	—	
输入低电平电压	V_{IL}	0.5,4.5	—	5	—	—	1.5	V
		1,9	—	10	—	—	3	
		1.5,13.5	—	15	—	—	4	

输入高电平电压	V _{OH}	0.5,4.5	—	5	3.5	—	—	V
		1,9	—	10	7	—	—	
		1.5,13.5	—	15	11	—	—	

 3.3.2、交流参数 (T_{amb} = 25°C, GND=0V, tr=tf=20ns, CL=50pF, RL=200KΩ)

参数名称	符号	测试条件	最小	典型	最大	单位
Φ I 到 Q4 输出 传输延时	t _{PHL} , t _{PLH}		5	—	370	740
			10	—	150	300
			15	—	100	200
Qn 到 Qn+1 传输 延时	t _{PHL} , t _{PLH}		5	—	100	200
			10	—	50	100
			15	—	40	80
转换时间	t _{THL} , t _{TLH}		5	—	100	200
			10	—	50	100
			15	—	40	80
最小输入 脉宽宽 度	t _w	f=100KHz	5	—	50	100
			10	—	20	40
			15	—	15	30
最大输入 脉冲频 率	f _{ΦI}		5	3.5	7	—
			10	8	16	—
			15	12	24	—
RC 振荡输出频率	F	CX=200pF RS=560KΩ RX=50Ω	5	—	23±10 %	—
			10	—	24±10 %	—
			15	—	25±10 %	—
		CX=200pF RS=560Ω RX=50Ω	5to10	—	1.5	—
			10to15	—	0.5	—

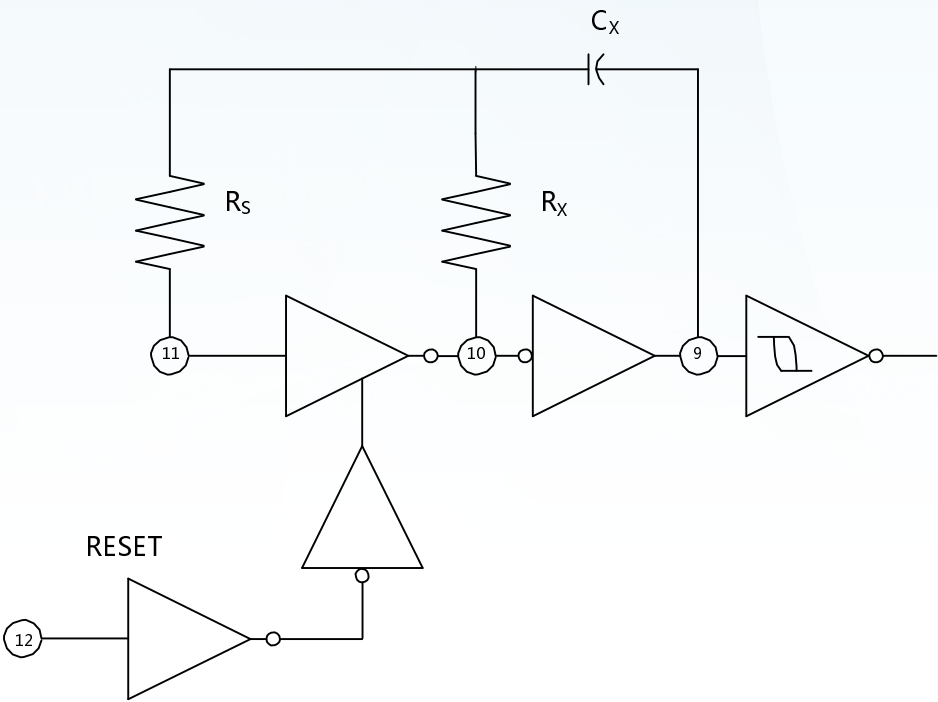


图4、RC振荡应用外围线路图

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