万 1
..... 3
..... 6
..... 11
代 13
..... 17
..... 21
..... 26
..... 31

万

代　代

低　　口

低

1　　N_D

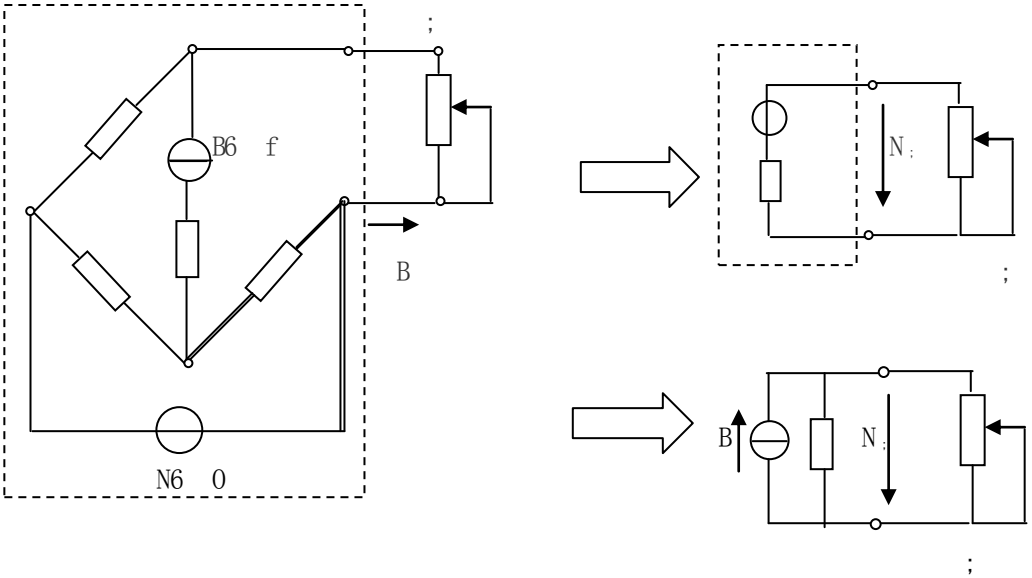
1

B_1　　B

七丝

发　　判　　$N_;$　B　　判

6→　6



				→
N； 0				
B f				

一 ；丝 ；

； 利 N_D

万 ； N； B 万

				→
N； 0				
B f				

万

七 万

				→
N； 0				
B f				

N； B 判 以

2 1 U_K I_d, 万

R_{AB}

利

及 及

丝

口 公

丝

丝 发

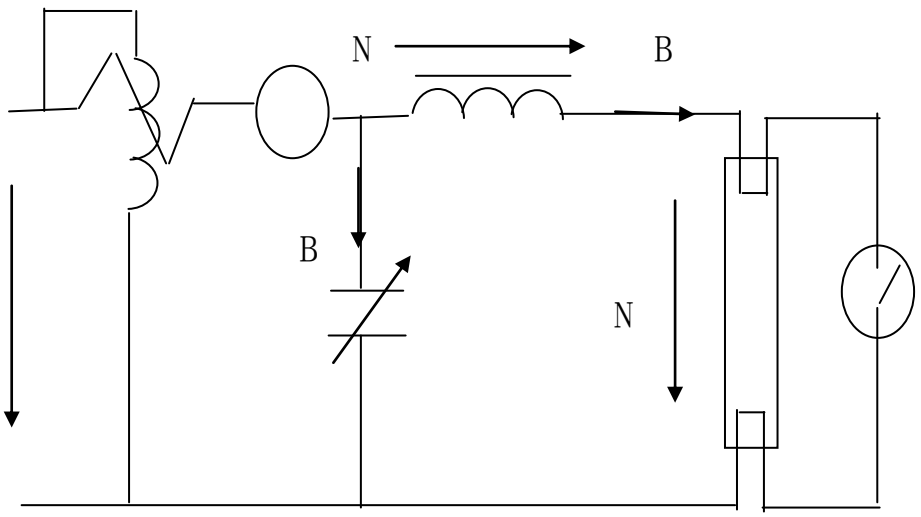
B B N B B

B B B B

B

发　　去

0



发　发　　6

B

?

B6

?	N 0	N 0	N 0	B f	B !f	B !f	P	

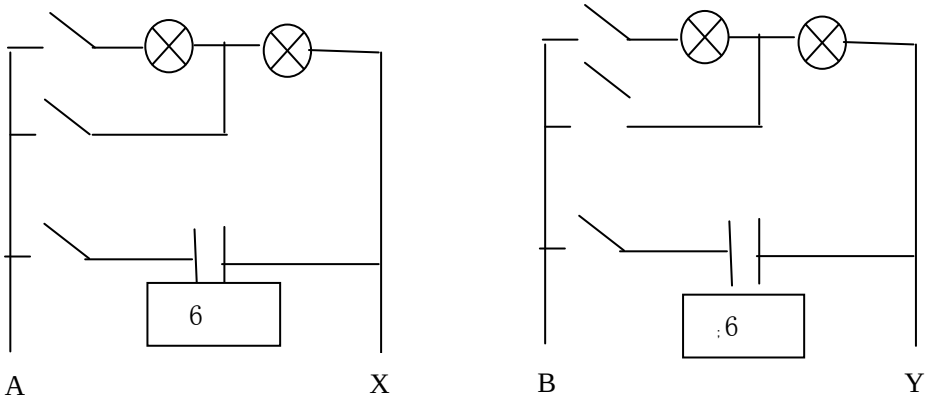
B6　　6

P 发

发

丝

Q R S ;



N O P 判

以 $\sqrt{3}$

N $6\sqrt{3}$N

万 丝

产 但

Q 万； R 万 S 万 判 五 七

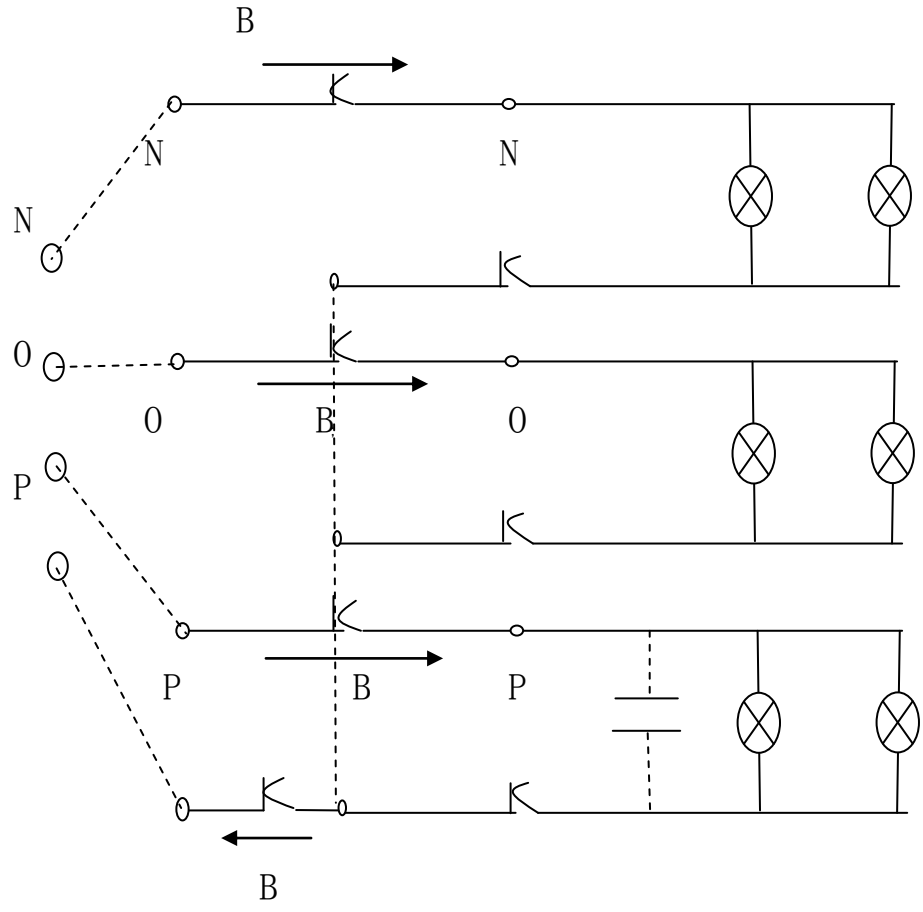
丝

以 $\sqrt{3}$ 公

B $6\sqrt{3}$ B

$\sqrt{3}$ 公 口

以 但



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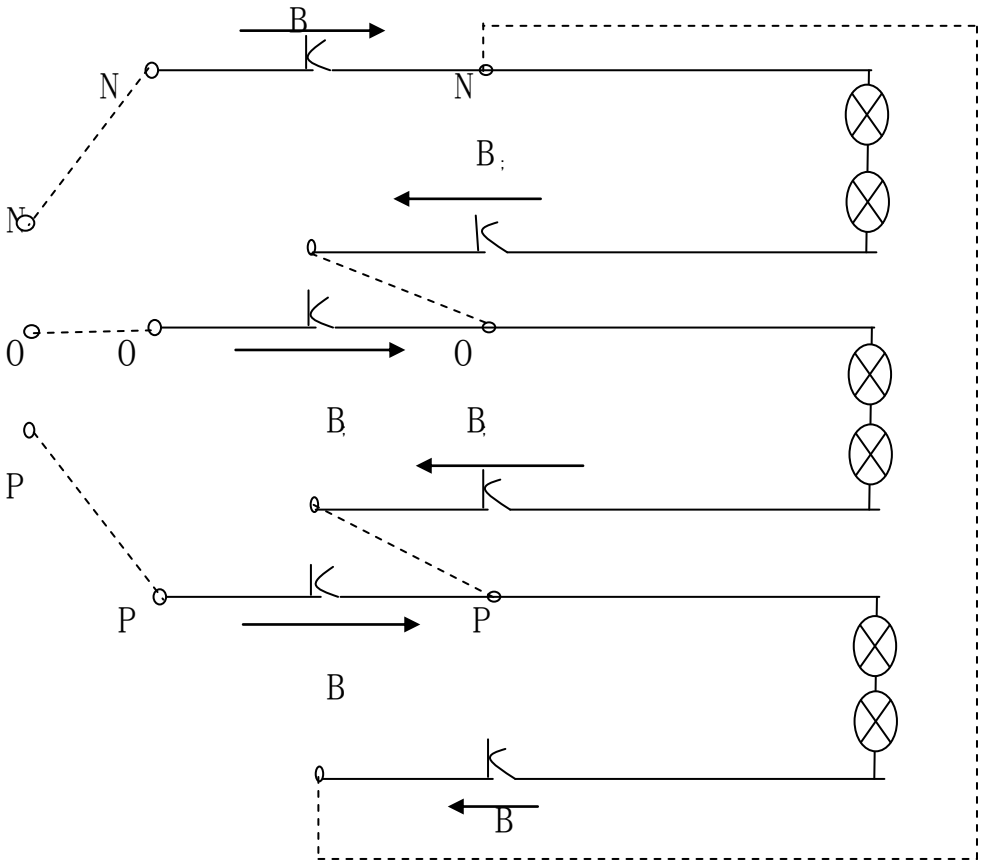

产　　万

!

以事　　公

判

七　　发 $\sqrt{3}$　　发 $\sqrt{3}$

利

11 9-(2!•+nì€KÃ™í.

公

；　　D　　D

；

；　　?N　　？

D　　D　　D　D

D　D　　以　　D　D

利　事

！　　公

！　　；

！　　；

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！　；

！

五

低　一

0　　丝　　利　　0

七

丝

低　　8

低　8

低　利

口　　利

代

一

台及

代

=

MA 台及

？ ND ； 一

代 台及 一

七 万 事

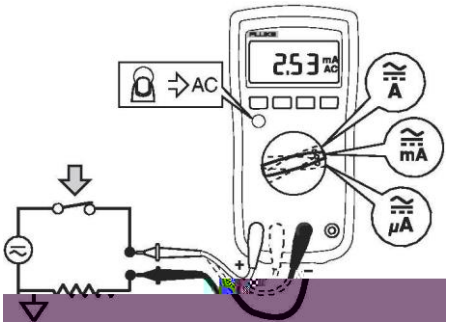
代 台

代 入

一

？ ND ； 一

一



一

丝 利

发 口

丝

七 判 0 0 0 0 w 0

MA 台及

MA 台及

MA 台及 代 台 ？D

D 台 MM

fA A A ~ A

fO 0 fO 0 0

0

0

f*0* DA 台

判 但

DA DA

判 但

fO fO

台

发 6 DA fO

台

台及 丝 公

=

=

= 七

发 万

= 丝 A A 及 QM

M B

BMB 七 但

BMB 台 但 BMB

N = 七

发

发 0 m 但

及 发 f0 发 f0 七

七 及 发

BMB 但

发

发 但

及 发 nl 发 gl 七

及 发

及

及 0 N ?

0 发 及 N 及 发 及

台

= 台

及

台　利 台　A　A

NM

及　五

利

=

去　代

台及　6 DA　fO　台　利　A

口　台

台及　“*f*=1KHz　50mV$_{P—P}$　台

台

利

低

台及　台

n

万

一

台及

=

一

0 n n_1 但 P 06 0 N

N :

N 0	N 0	; D

发 但 P 06 0 I_C OM O

R_{B2} R_{B1} OM I_B

β $I_B = \frac{V_{CC} - V_B}{R_{B2}} - \frac{V_B}{R_{B1}}$ $\beta = \frac{I_C}{I_B}$

I_B β

I_C f

n *n*

N *N*

n f0 6 A 发

去					
		n !0 0	*n* !0 0	n	n
	D				
	D				

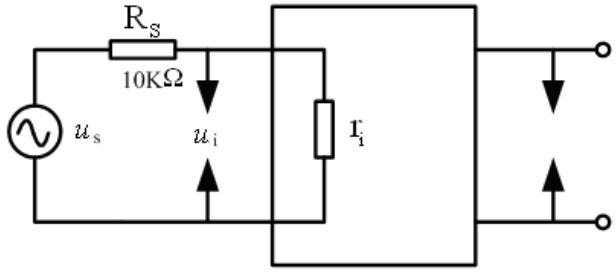
n f0 6 A P *n* 发

一 判 *N* *N* *N*

P	*N* 0	*N* 0	*N* 0	*n* 低

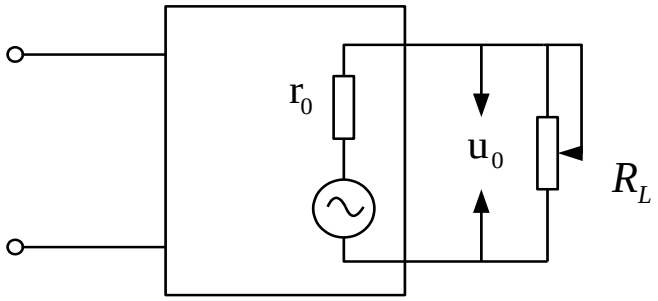
N

n_1 *n*



但 6 D

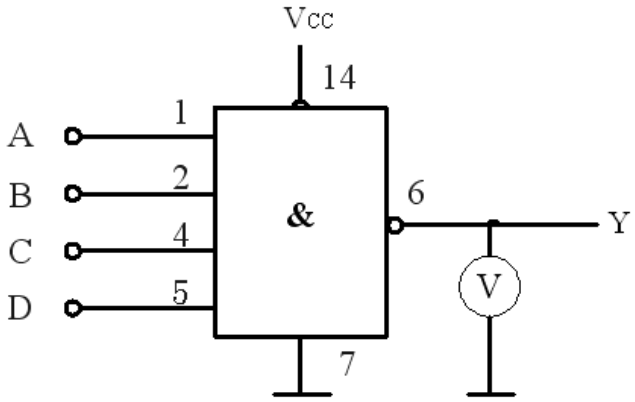
n



6

N f0	N f0			N 0 6→	N 0 6 D		

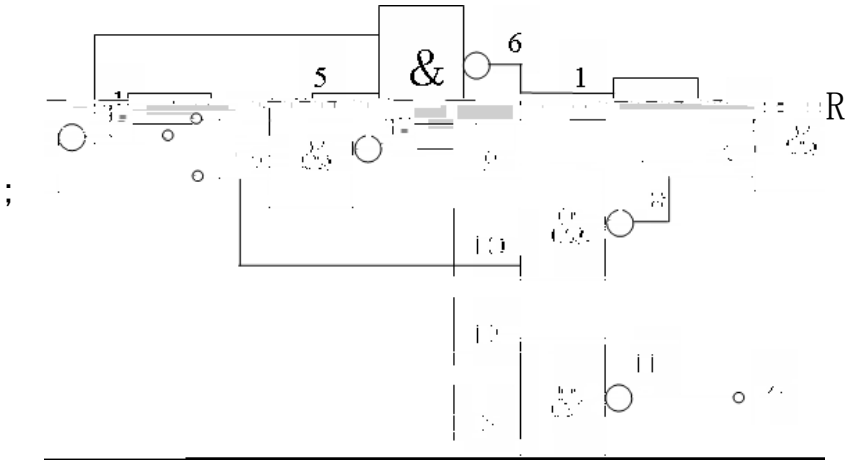
入



台					
				R	0
A	A	A	A		
	A	A	A		
		A	A		
			A		

口 判 公 ； R

及



	;	R
	A	
A		
A	A	

	;	R	S
	A		
A			
A	A		

万

万

$$F = \overline{\overline{A+B}} = \overline{\overline{A} \bullet \overline{B}}$$

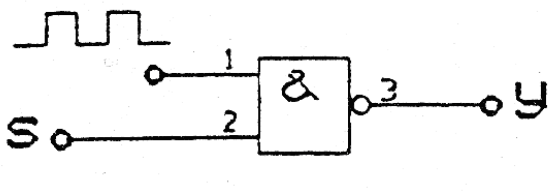
	;	?
	A	
A		
A	A	

万

	;	?
	A	
A		
A	A	

万

公

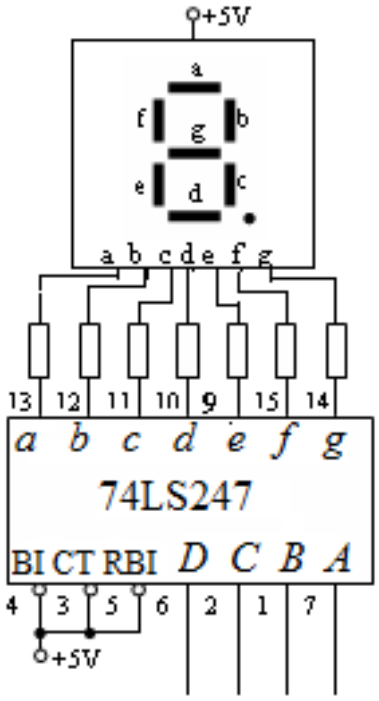


万

代

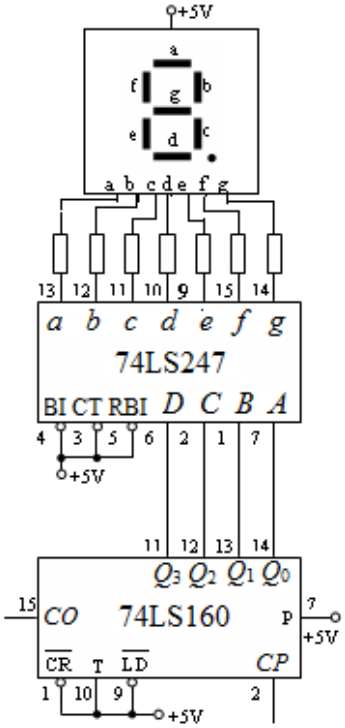
一

七　　七　　但


+5V
a
f
g
b
e
d
c
a b c d e f g
13 12 11 10 9 15 14
a b c d e f g
74LS247
BI CT RBI D C B A
4 3 5 6 2 1 7
+5V

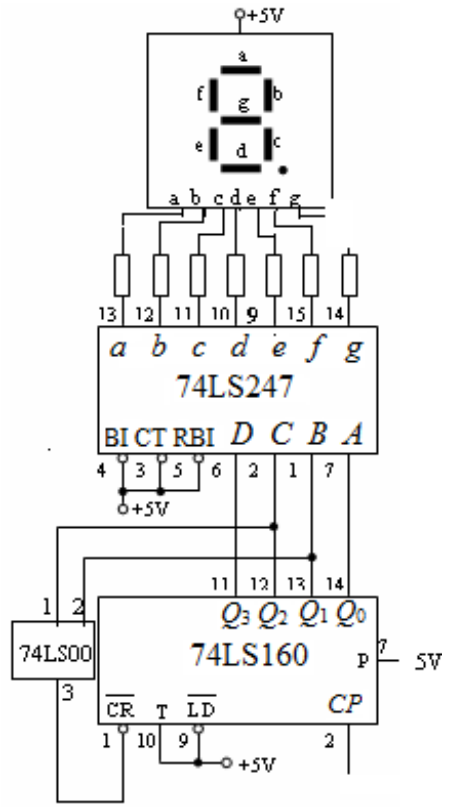
M	*；B*	*；B ；*	*= ；*	*Z*	
	Q Q		Q Q Q Q Q Q Q Q		

七区

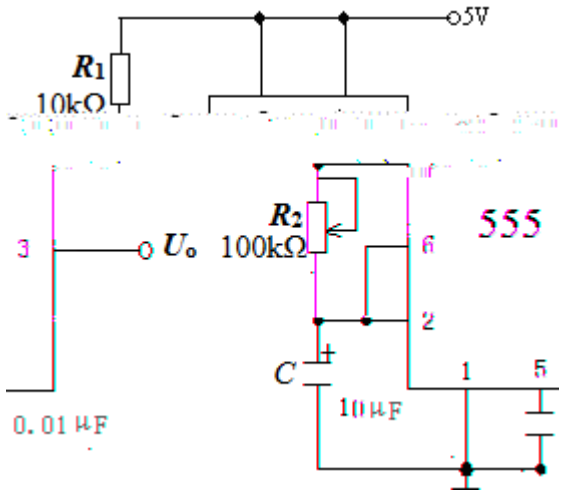


区

去

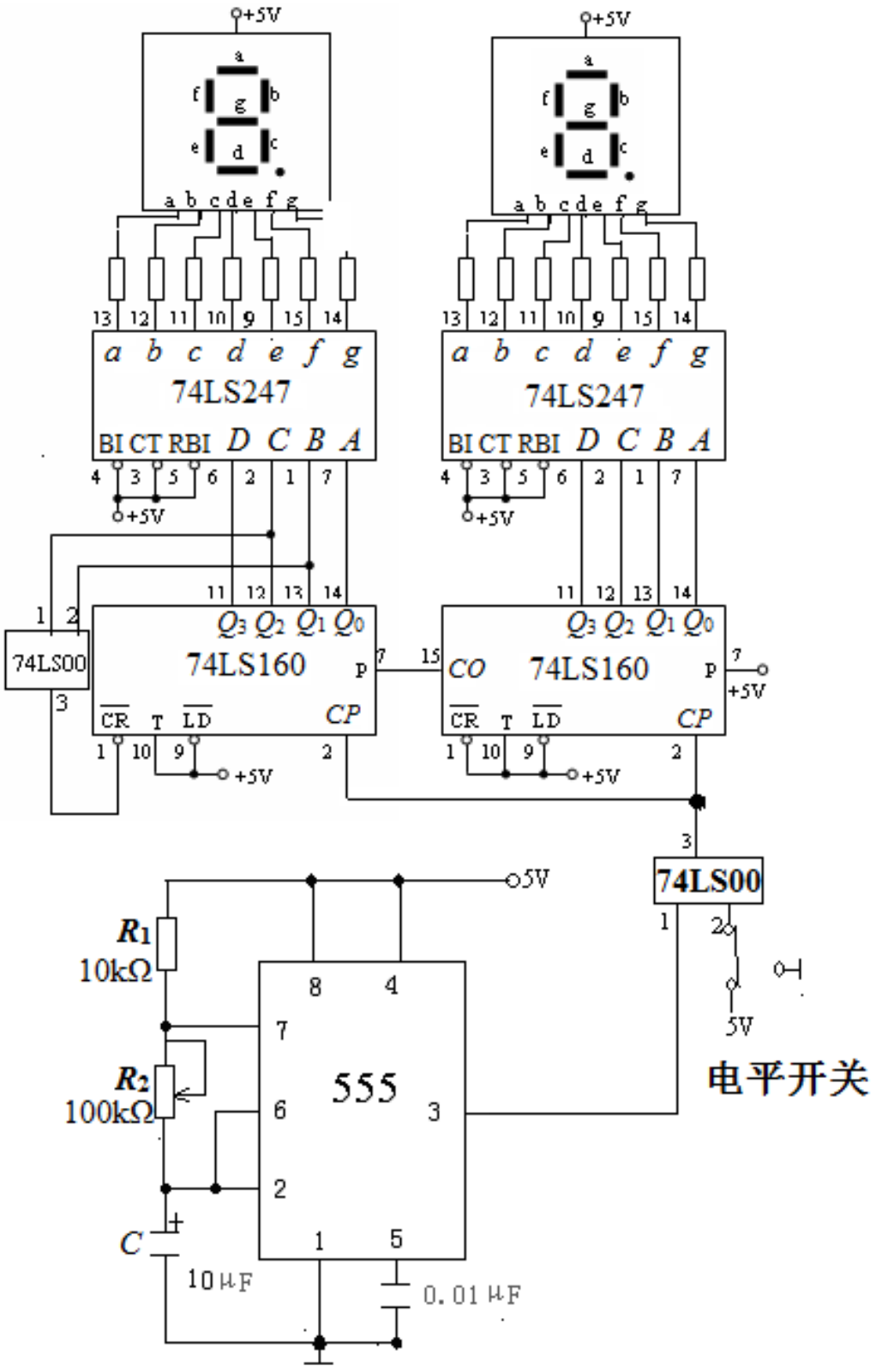

+5V
a
f
g
b
e
d
c
a b c d e f g
13 12 11 10 9 15 14
a b c d e f g
74LS247
BI CT RBI D C B A
4 3 5 6 2 1 7
+5V
11 12 13 14
1 2
Q3 Q2 Q1 Q0
74LS00
74LS160
P
7
5V
3
CR T LD
CP
1 10 9
2
+5V

去

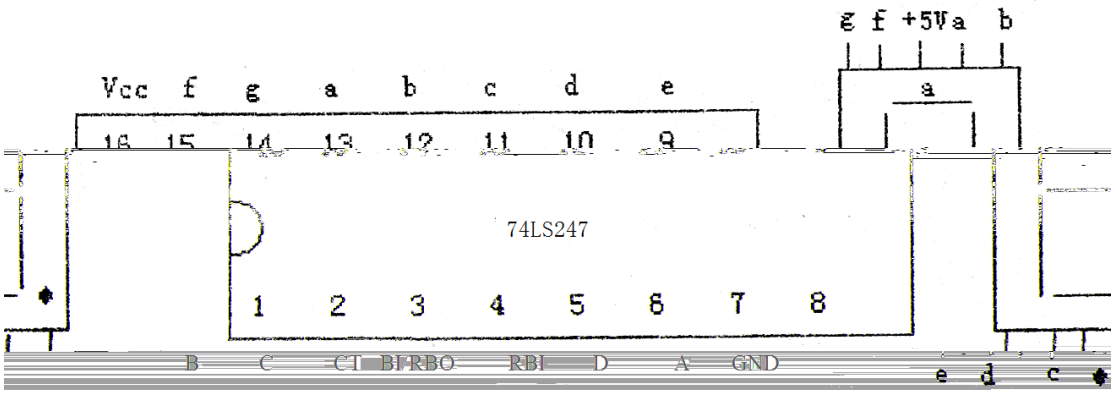

5V
R1
10kΩ
R2
100kΩ
555
3
Uo
6
2
C
1
5
10μF
0.01μF

丝但 去

利

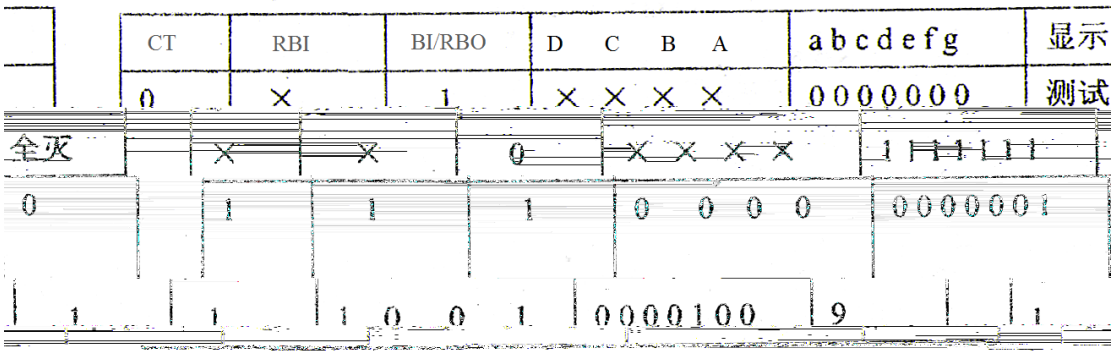

+5V
a b c d e f g
74LS247
BI CT RBI D C B A
74LS160
Q3 Q2 Q1 Q0
CR T LD CP
CO
74LS00
555
R1
10kΩ
R2
100kΩ
C
10μF
0.01μF
5V
电平开关

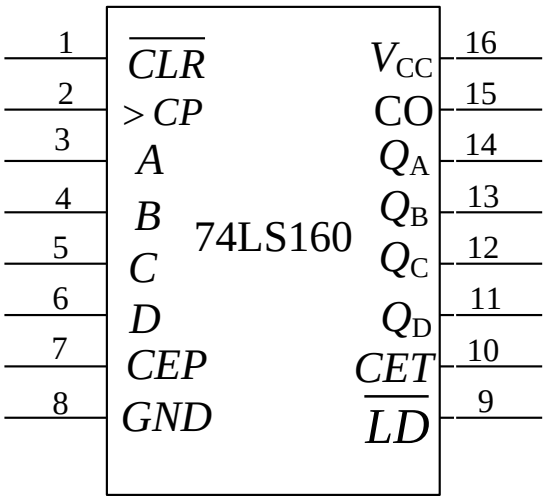
低

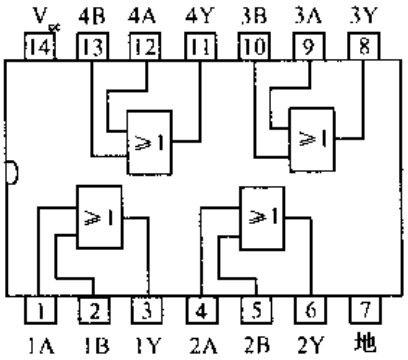


引脚图　　数码引脚图

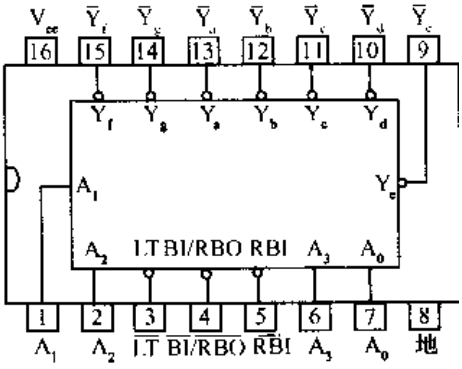
74LS247 功能表：



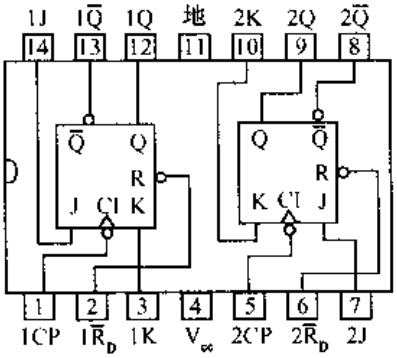




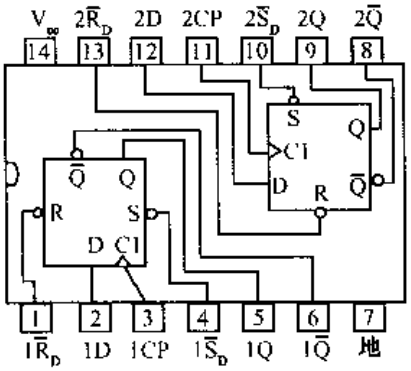
74LS32(2 输入 4 或门)



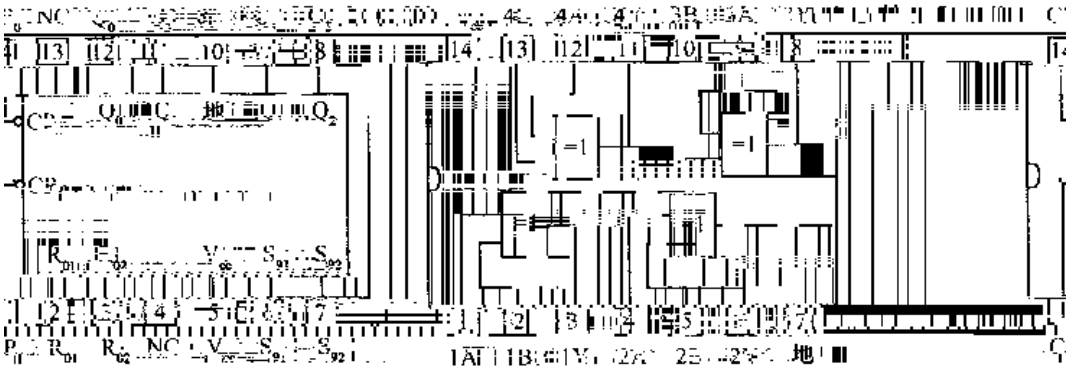
74LS247(BCD—七段译码/驱动器)



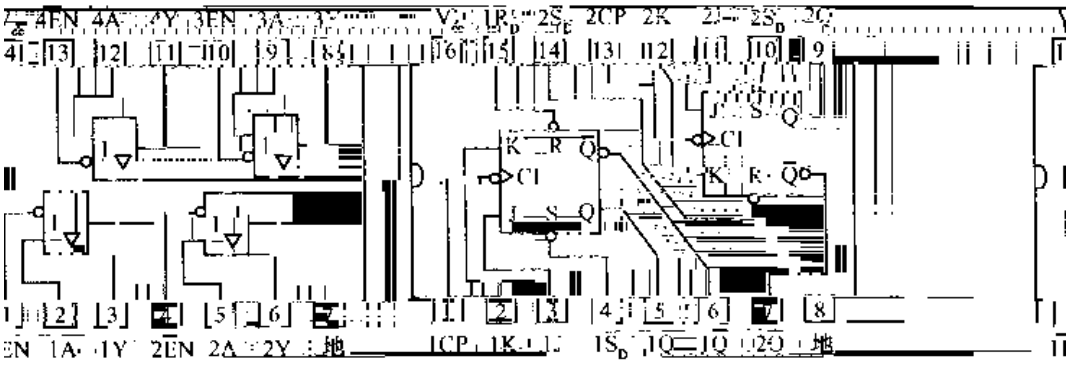
74LS73(双 JK 触发器)



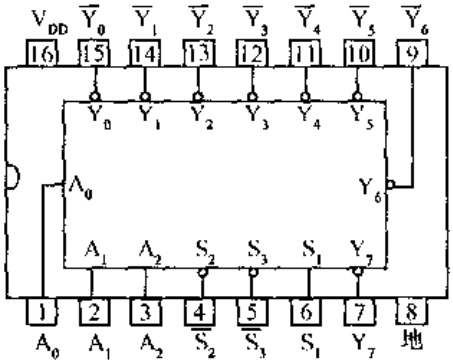
74LS74(双 D 触发器)



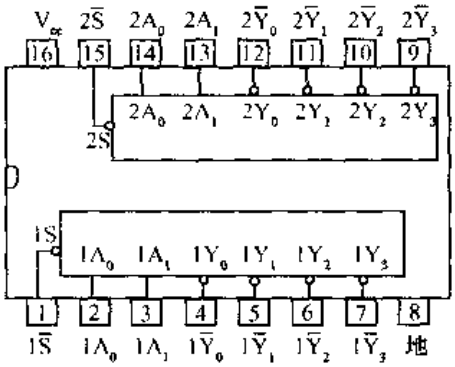
74LS90(异步计进制计数器) 74LS86(4 异或门)



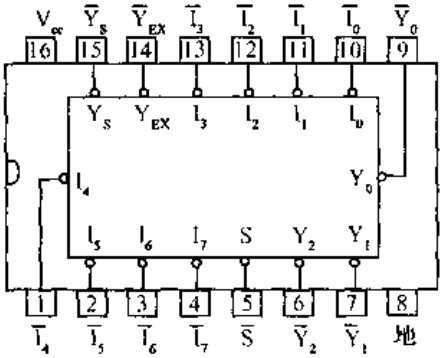
74LS125(4 同相 3 态门) 74LS112(双 JK 触发器)



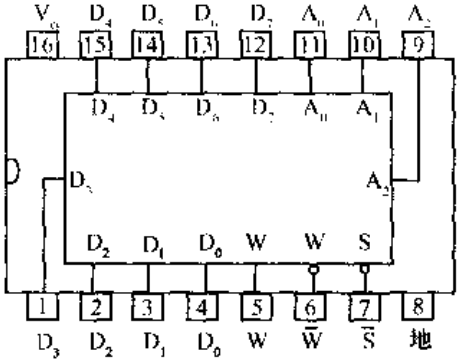
74LS138(3 线—8 线译码器)



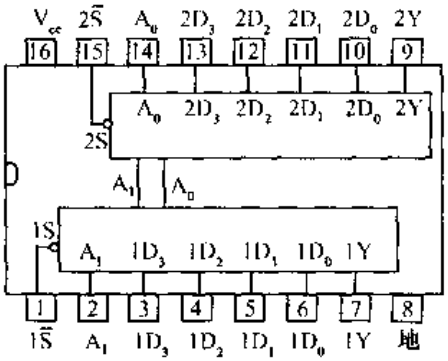
74LS139(双 2 线—4 线译码器)



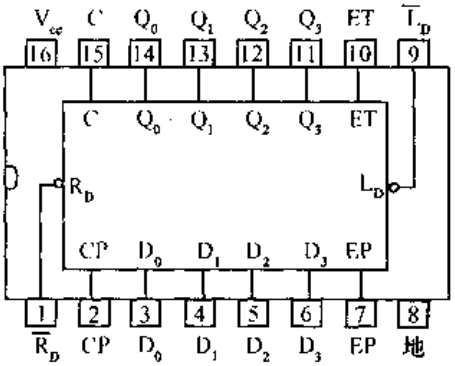
74LS148(8 线—3 线编码器)



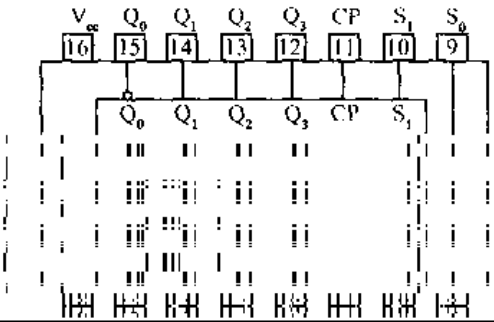
74LS151(8 选 1 数据选择器)



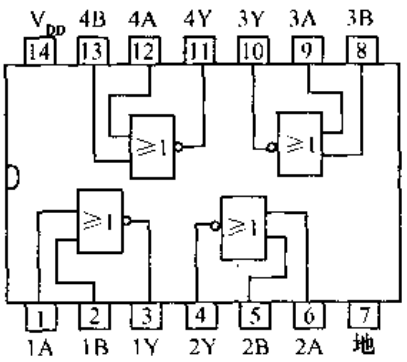
74LS153(双 4 选 1 数据选择器)



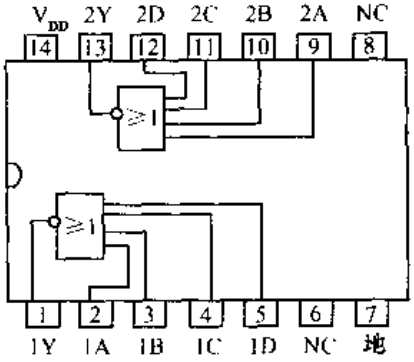
74LS160/74LS161(同步 10/16 进制计数器)



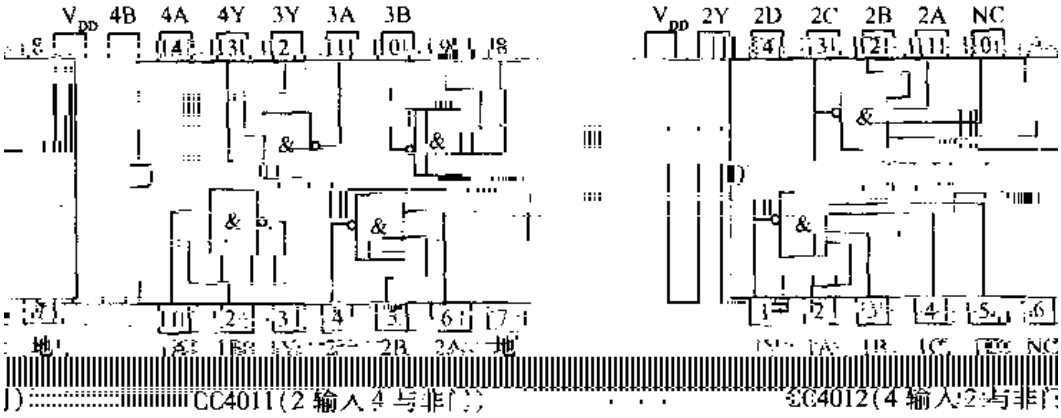
74LS194(双向移位寄存器)



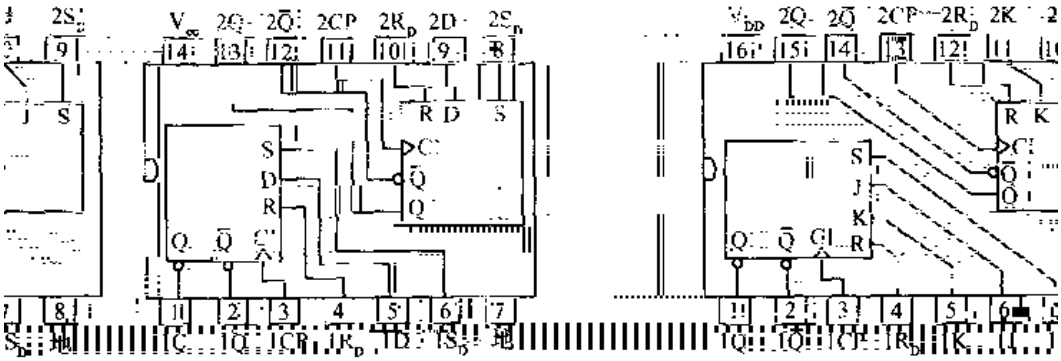
CC4001(2 输入 4 或非门)



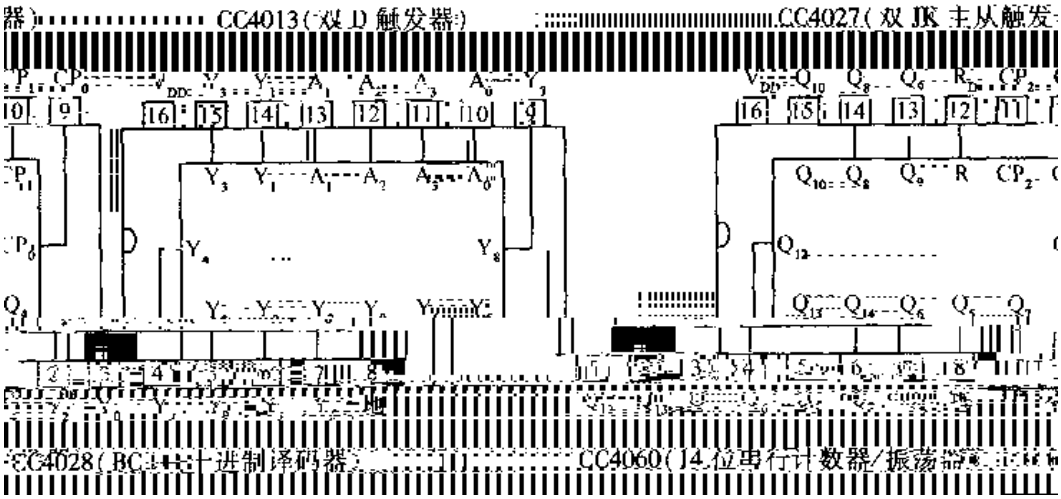
CC4002(4 输入 2 或非门)



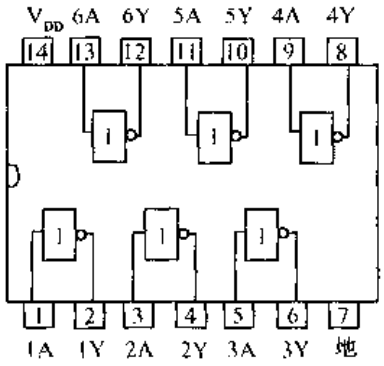
CC4011(2 输入 4 与非门)　　CC4012(4 输入 2 与非门)



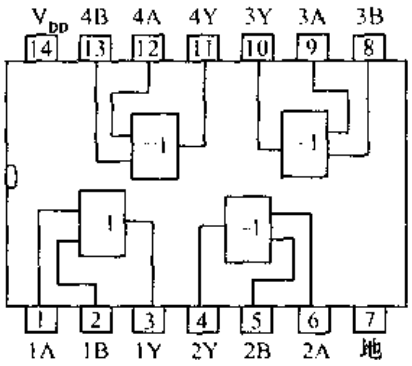
CC4013(双 D 触发器)　　CC4027(双 JK 主从触发器)



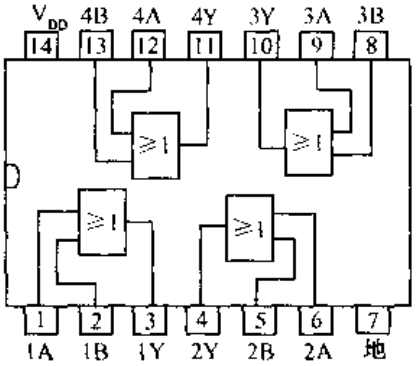
CC4028(BCD 十进制译码器)　　CC4060(14 位串行计数器/振荡器)



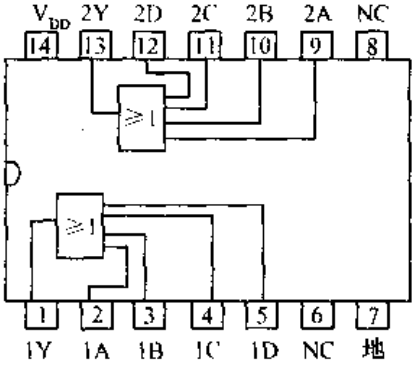
CC4069(6 反相器)



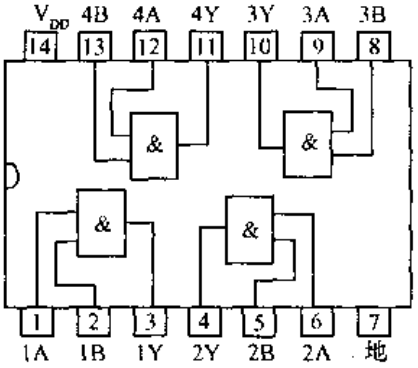
CC4070(4 异或门)



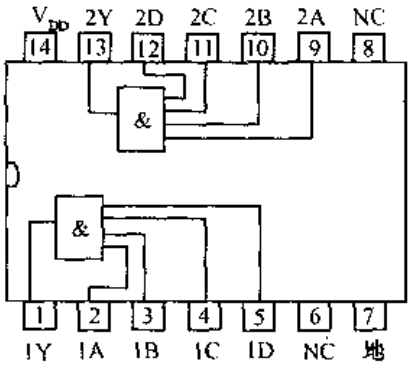
CC4071(2 输入 4 或门)



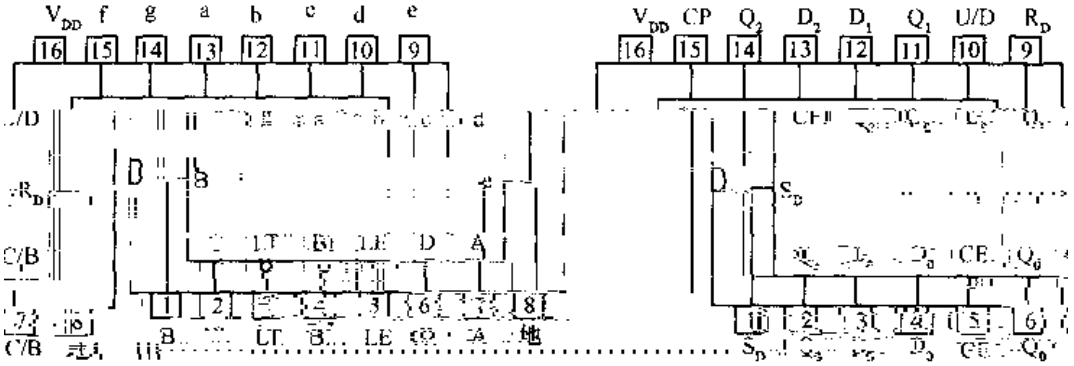
CC4072(4 输入 2 或门)



CC4081(2 输入 4 与门)



CC4082(4 输入 2 与门)



制计数器 CC4511(BCD—七段译码/驱动器) CC4516(4510)(可逆六/十进