



# MC5492 • MC7492 MC9392 • MC8392

Add Suffix F for TO-86 ceramic package (Case 607)  
 Suffix L for TO-116 ceramic package (Case 632)  
 Suffix P for TO-116 plastic package (Case 646) MC7492, MC8392 only.

**COUNT SEQUENCE TRUTH TABLE**

COUNT	OUTPUT			
	Q3	Q2	Q1	Q0
0	0	0	0	0
1	0	0	0	1
2	0	0	1	0
3	0	0	1	1
4	0	1	0	0
5	0	1	0	1
6	1	0	0	0
7	1	0	0	1
8	1	0	1	0
9	1	0	1	1
10	1	1	0	0
11	1	1	0	1

Q0 connected to  $\bar{C}1$

This 4-bit counter is comprised of a divide-by-two section and a divide-by-six section. These sections can be used independently, or can be connected to perform the divide-by-twelve function. When used independently, the divide-by-six section provides the divide-by-three function at the Q2 output and the divide-by-six function at the Q3 output. The outputs may be set to the logic "0" state any time during the counting sequence by setting both R0 inputs to the logic "1" state.

V<sub>CC</sub> = Pin 5  
 Gnd = Pin 10

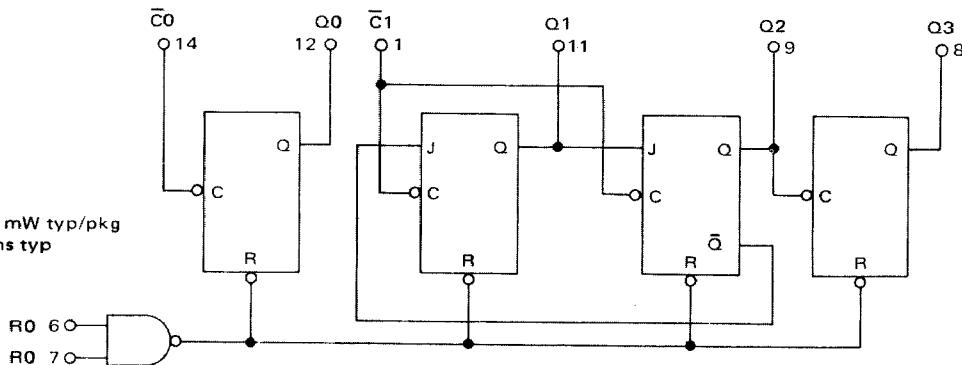
Input Loading Factor:

- R0 = 1
- C0 = 2
- C1 = 4

Output Loading Factor = 10

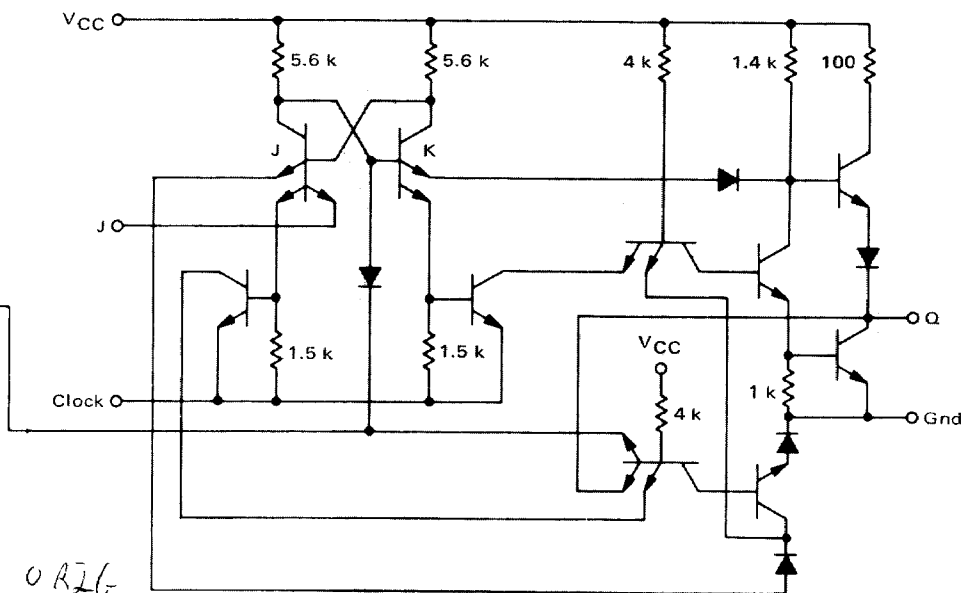
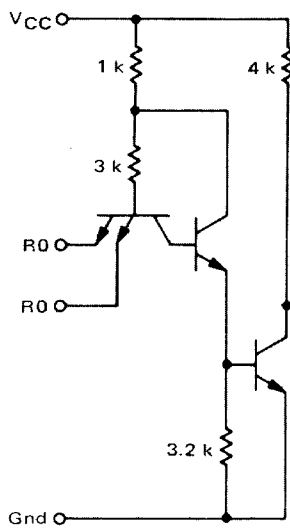
Total Power Dissipation = 160 mW typ/pkg

Propagation Delay Time = 60 ns typ



RESET GATE

TYPICAL FLIP-FLOP



2

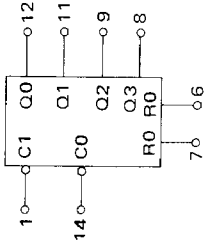
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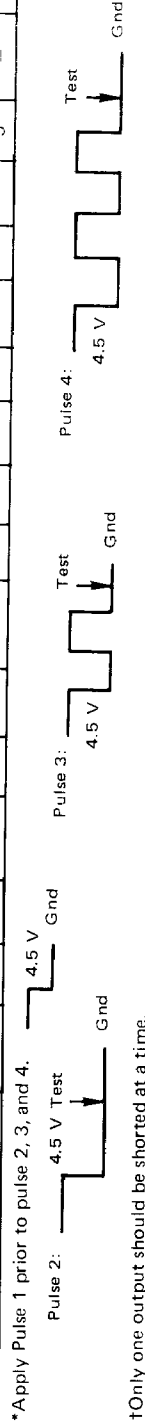
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ELECTRICAL CHARACTERISTICS



TEST CURRENT/VOLTAGE VALUES (All Temperatures)										
		Volts								
		mA								
IO <sub>L</sub>	IO <sub>H</sub>	V <sub>IL</sub>	V <sub>IH</sub>	V <sub>IHH</sub>	V <sub>R</sub>	V <sub>IHT</sub>	V <sub>CC</sub>	V <sub>CCL</sub>	V <sub>CCH</sub>	
16	-0.4	0.4	2.4	5.5	4.5	2.0	5.0	4.5	5.5	
16	-0.4	0.4	2.4	5.5	4.5	2.0	5.0	4.75	5.25	
TEST CURRENT/VOLTAGE APPLIED TO PINS LISTED BELOW:										
Characteristic	Symbol	Pin Under Test	MC5492, MC9392 -55 to +125°C		MC7492, MC8392 0 to +75°C		MC5492, MC9392 -55 to +125°C		MC7492, MC8392 0 to +75°C	
			Min	Max	Unit	Min	Max	Unit	Min	Max
Input										
Forward Current	R0	6	-	-1.6	mAdc	-	-1.6	mAdc	-	-
	C0	7	-	-1.6	mAdc	-	-1.6	mAdc	-	-
	C1	14	-	-3.2	mAdc	-	-3.2	mAdc	-	-
		1	-	-6.4	mAdc	-	-6.4	mAdc	-	-
Leakage Current	R0	6	-	40	μAdc	-	40	μAdc	-	-
	C0	7	-	40	μAdc	-	40	μAdc	-	-
	C1	14	-	80	μAdc	-	80	μAdc	-	-
		1	-	160	μAdc	-	160	μAdc	-	-
	R0	6	-	1.0	mAdc	-	1.0	mAdc	-	-
	C0	7	-	1.0	mAdc	-	1.0	mAdc	-	-
	C1	14	-	1.0	mAdc	-	1.0	mAdc	-	-
Output Pulse 2*										
Output Voltage	Q0	12	-	0.4	Vdc	-	0.4	Vdc	-	-
Short-Circuit Current			-20	-57	mAdc	-	-18	-57	mAdc	-
Output Voltage			2.4	-	Vdc	-	2.4	-	Vdc	-
Pulse 2	Q1	11	-	0.4	Vdc	-	0.4	Vdc	-	-
			-20	-57	mAdc	-	-18	-57	mAdc	-
			2.4	-	Vdc	-	2.4	-	Vdc	-
Pulse 3	Q2	9	-	0.4	Vdc	-	0.4	Vdc	-	-
			-20	-57	mAdc	-	-18	-57	mAdc	-
			2.4	-	Vdc	-	2.4	-	Vdc	-
Pulse 4	Q3	8	-	0.4	Vdc	-	0.4	Vdc	-	-
			-20	-57	mAdc	-	-18	-57	mAdc	-
			2.4	-	Vdc	-	2.4	-	Vdc	-
Power Requirements (Total Device)										
Power Supply Drain		5	-	44	mAdc	-	51	mAdc	-	-



\*Apply Pulse 1 prior to pulse 2, 3, and 4. Only one output should be shorted at a time.