



**MC5475 • MC7475**  
**MC9375 • MC8375**  
**MC5477 • MC7477**  
**MC9377 • MC8377**

ISSUE A

0AIG

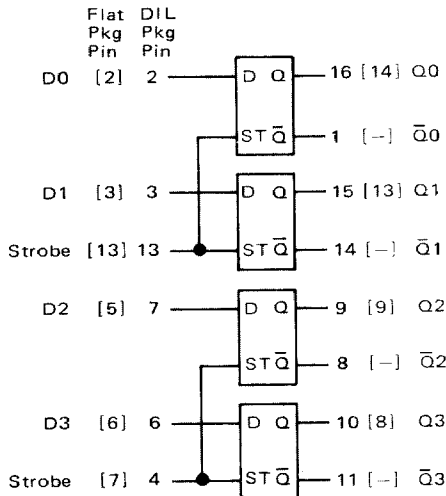
2

004476

4476

NOT

Add Suffix F for 14-pin ceramic package (Case 607) MC5477/7477, MC9377/8377.  
 Suffix L for 16-pin ceramic package (Case 620) MC5475/7475, MC9375/8375.  
 Suffix P for 16-pin plastic package (Case 648) MC7475, MC8375.

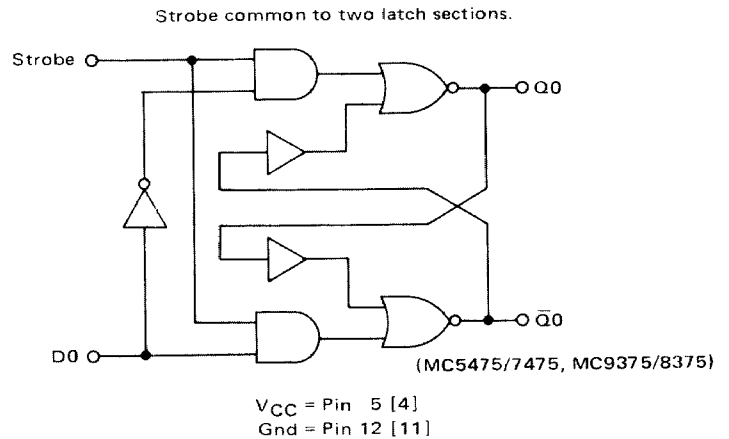


$t_n$	$t_{n+1}$	
D	Q	$\bar{Q}$
1	1	0
0	0	1

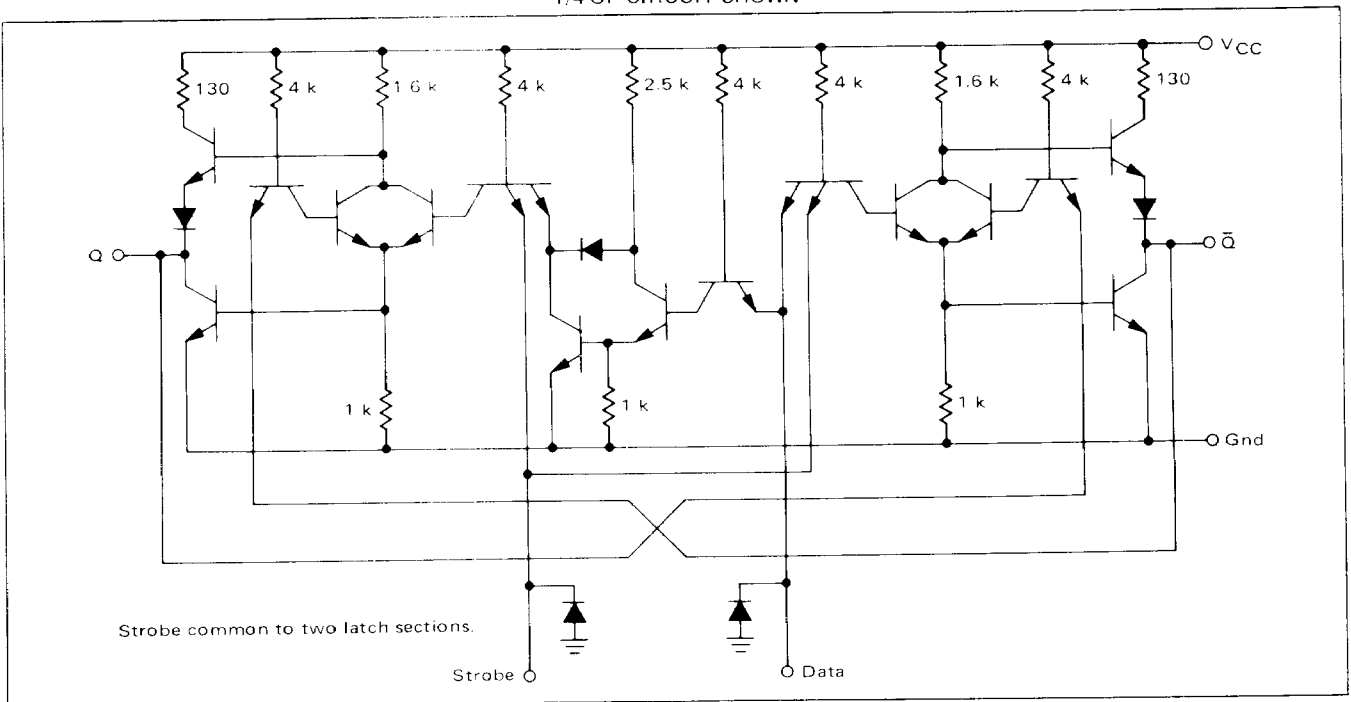
Input Loading Factor:  
 D = 2  
 Strobe = 4  
 Output Loading Factor = 10  
 Total Power Dissipation = 160 mW typ/pkg

These devices consist of four bistable circuits. When the strobe is in the logic "1" state, the Q output will follow the state of the data input. When the strobe goes to the logic "0" state, the Q output will retain the state of the data input at the time of the transition from the logic "1" state. The MC5475/7475 and the MC9375/8375 are supplied in a 16-pin package and have Q and  $\bar{Q}$  outputs. The MC5477/7477 and the MC9377/8377 are supplied in a 14-pin package and have only Q outputs.

**LOGIC DIAGRAM**  
 (1/4 OF DEVICE SHOWN)



**CIRCUIT SCHEMATIC**  
 1/4 OF CIRCUIT SHOWN



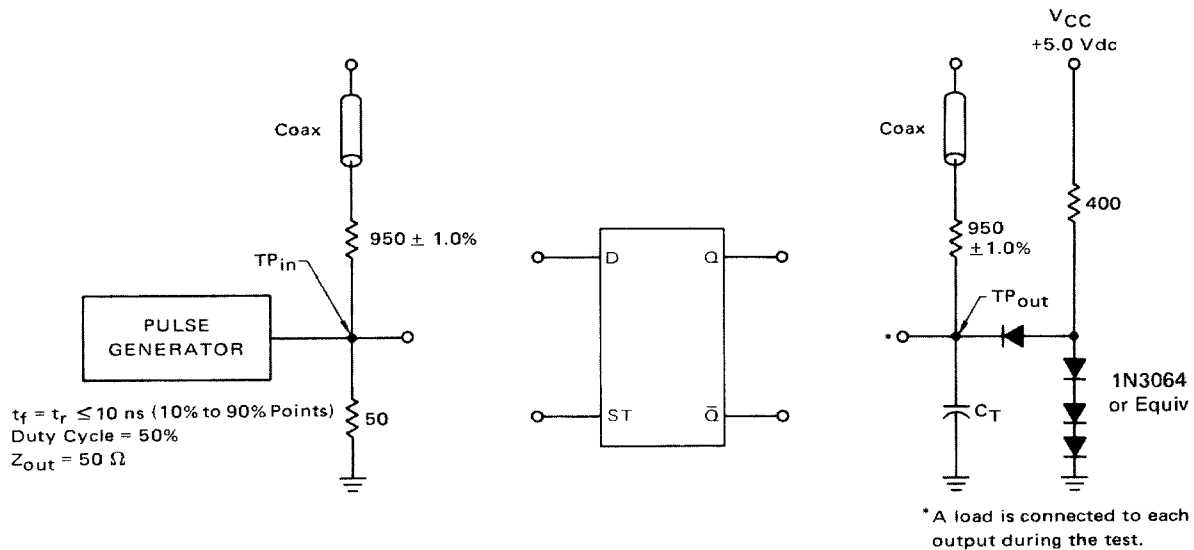


## OPERATING CHARACTERISTICS

Data present on the D input between the setup and hold times will be transferred to the Q output when the strobe input changes from the logic "0" state to the logic "1" state. As long as the strobe remains in the logic "1" state, the Q output will follow the state of

the D input. When the strobe input changes from the logic "1" state to the logic "0" state, data present on the D input between the setup and hold times will be retained on the Q output until the strobe returns to the logic "1" state.

### SWITCHING TIME TEST CIRCUIT AND WAVEFORMS



Two pulse generators are required and must be slaved together to provide the waveforms shown.

The coax delays from input to scope and output to scope must be matched. The scope must be terminated in 50-ohm impedance. The 950-ohm resistor and the scope termination impedance constitute a 20:1 attenuator probe. Coax shall be CT-070-50 or equivalent.

$C_T = 15 \text{ pF}$  = total parasitic capacitance, which includes probe, wiring, and load capacitances.

