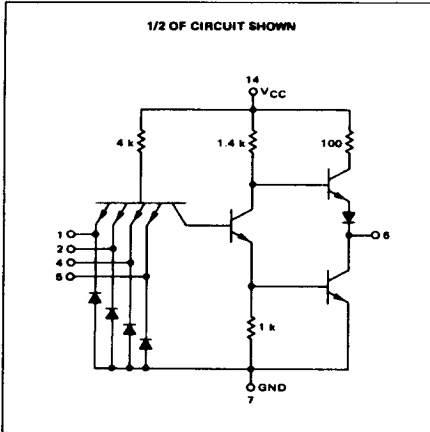


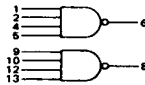
DUAL 4-INPUT "NAND" GATE

MTTL MC7400P series
MTTL MC5400L/7400L series

MC5420L*
MC7420P,L*



This device consists of two 4-input NAND gates. These gates may be cross-coupled to form a set-reset flip-flop.



Positive Logic: $6 = 1 + 2 + 4 + 5$
Negative Logic: $6 = 1 + 2 + 4 + 5$

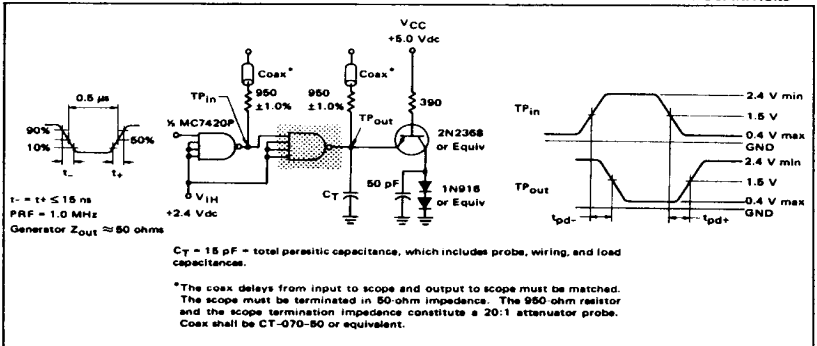
Input Loading Factor = 1
Output Loading Factor = 10

Total Power Dissipation = 20 mW typ/pkg
Propagation Delay Time = 13 ns typ

*L suffix = TO-118 ceramic package (Case 632)
P suffix = TO-118 plastic package (Case 606)
See General Information section for package outline dimensions.

SWITCHING TIME TEST CIRCUIT

VOLTAGE WAVEFORMS AND DEFINITIONS



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ELECTRICAL CHARACTERISTICS

Test procedures are shown for only one gate. The other gates is tested in the same manner. Further, test procedures are shown for only one input of the gate under test. To expedite testing, sequences through remaining inputs.



		TEST CURRENT/VOLTAGE VALUES (All Temperatures)																
		mA																
		Volts																
		I_{CC}	I_{OH}	V_E	V_{IH}	V_{IH}	V_{IHI}	V_{IH}	V_{IHI}	V_{IH}	V_{OH}	V_{OH}	V_{OH}	V_{OH}	V_{OH}	V_{OH}		
Input	Forward Current	MC5420		MC7420												Grd		
		0 to +70°C		-0.4	0.4	2.4	5.5	4.5	5.0	2.0	0.8	5.0	4.5	5.5	-		-	-
Leakage Current	I_{RL}	MC5420 Test Limits		MC7420 Test Limits												7*		
		-55 to +125°C		-	-	-	-	-	-	-	-	-	-	-	-		-	-
Output	Output Voltage	MC5420 Test Limits		MC7420 Test Limits												7*		
		0 to +70°C		-	-	-	-	-	-	-	-	-	-	-	-		-	-
Short-Circuit Current	I_{SC}	MC5420 Test Limits		MC7420 Test Limits												7*		
		0 to +70°C		-	-	-	-	-	-	-	-	-	-	-	-		-	-
Power Requirements (Total Device)	Power-Supply Drain	MC5420 Test Limits		MC7420 Test Limits												7*		
		-55 to +125°C		-	-	-	-	-	-	-	-	-	-	-	-		-	-
Switching Parameters	Turn-On Delay	MC5420 Test Limits		MC7420 Test Limits												7*		
		0 to +70°C		-	-	-	-	-	-	-	-	-	-	-	-		-	-
Switching Parameters	Turn-Off Delay	MC5420 Test Limits		MC7420 Test Limits												7*		
		0 to +70°C		-	-	-	-	-	-	-	-	-	-	-	-		-	-

*Ground inputs to gate not under test.

**Tested only at 25°C.

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