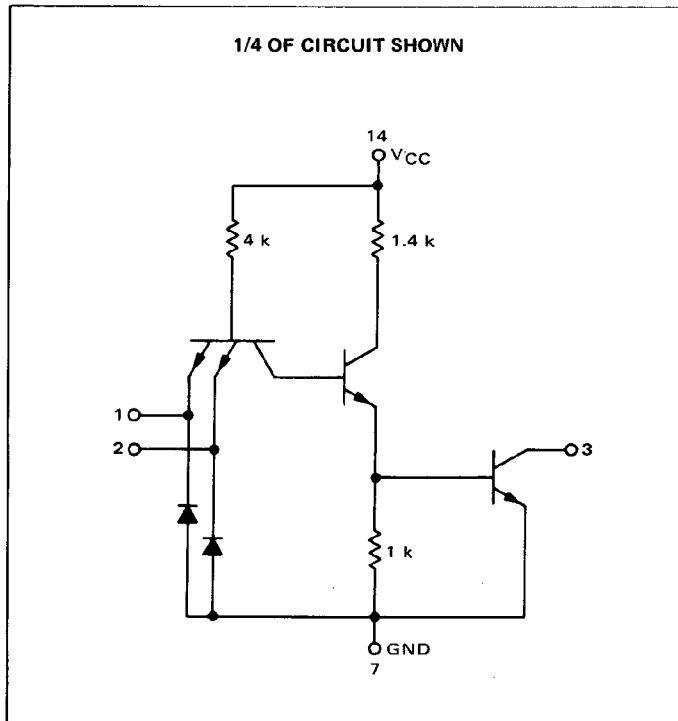


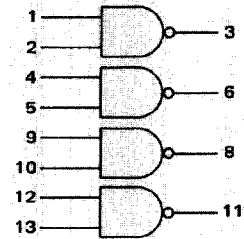


DECEMBER 1969

MC5403L*
MC7403P,L*



This device consists of four 2-input NAND gates with no output pullup circuits. It can be used where the Wired-OR function is required, or for driving discrete components.



Positive Logic: $3 = \overline{1 \cdot 2}$

Negative Logic: $3 = \overline{1 + 2}$

Input Loading Factor = 1

Output Loading Factor = 10

Total Power Dissipation = 40 mW typ/pkg

Propagation Delay Time = 35 ns typ

* L suffix = TO-116 ceramic package (Case 632)

P suffix = TO-116 plastic package (Case 605)

See General Information section for package outline dimensions.

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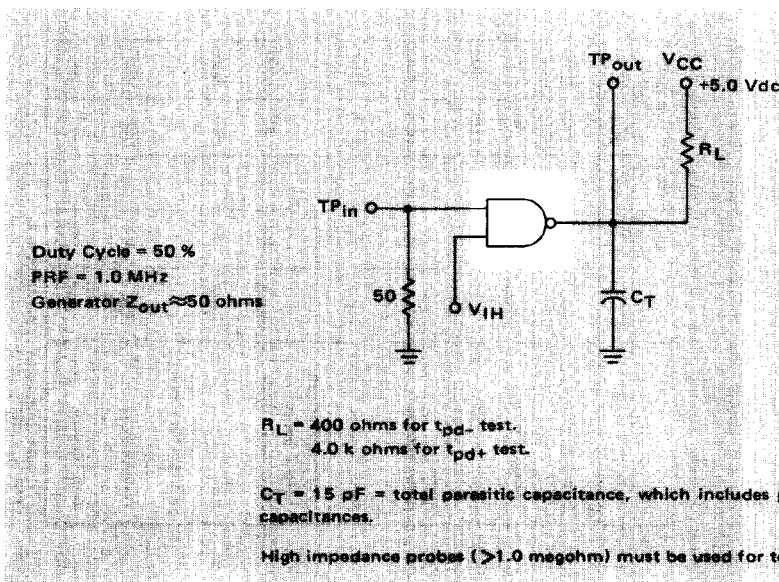
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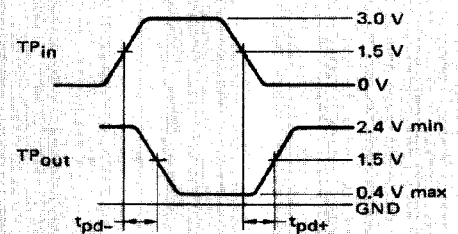
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not

VOLTAGE WAVEFORMS AND DEFINITIONS

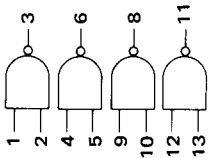


SWITCHING TIME TEST CIRCUIT



ELECTRICAL CHARACTERISTICS

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



MC5403

MC7403

Characteristic		Symbol	Pin Under Test	MC5403 Test Limits -55 to +125°C			MC7403 Test Limits 0 to +70°C			TEST CURRENT / VOLTAGE APPLIED TO PINS LISTED BELOW:											
				Min	Max	Unit	Min	Max	Unit	I _{OL}	V _{IL}	V _{IH}	V _{IHH}	V _{R1}	V _{R2}	V _{Ih1}	V _{Ih0}	V _{CEX}	V _{CC}	V _{CCL}	V _{CCH}
Input Forward Current	I _F	1	-	-1.6	mAdc	-	-1.6	mAdc	-	1	-	-	2	-	-	-	-	-	-	14	
	I _{R1}	1	-	40	μAdc	-	40	μAdc	-	-	1	-	-	-	-	-	-	-	14		
Leakage Current	I _{R2}	1	-	1.0	mAdc	-	1.0	mAdc	-	-	-	1	-	-	-	-	-	-	14		
	V _{OL}	3	-	0.4	Vdc	-	0.4	Vdc	3	-	-	-	-	-	1.2	-	-	-	14		
Output Output Voltage	I _{CEX}	3	-	0.25	mAdc	-	0.25	mAdc	-	-	-	-	1	-	2	-	3	-	14		
Power Requirements (Total Device) Power Supply Drain	I _{PDH}	14	-	22	mAdc	-	22	mAdc	-	-	-	-	-	-	-	-	-	-	14		
	I _{PDL}	14	-	8.0	mAdc	-	8.0	mAdc	-	-	-	-	-	-	-	-	-	-	14		
Switching Parameters	t _{pd-}	1,3	-	15**	ns	-	15**	ns										14	-		
	t _{pd+}	1,3	-	45**	ns	-	45**	ns										14	-		

*Ground inputs to gates not under test.

**Tested only at 25°C.



MOTOROLA Semiconductor Products Inc.

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