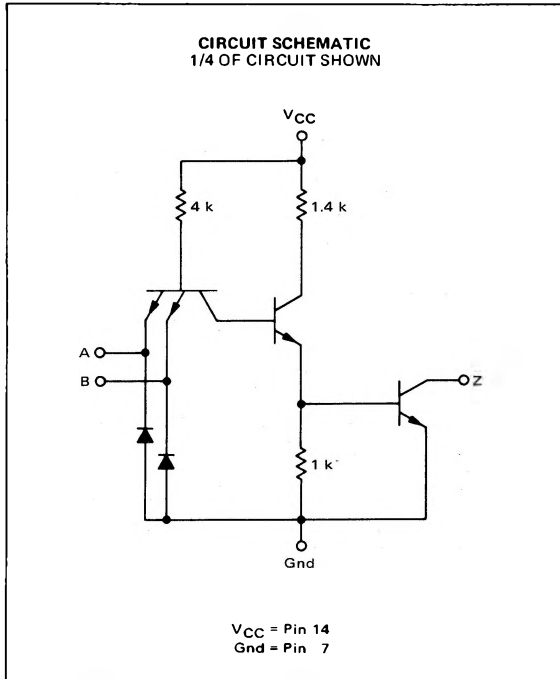


QUAD 2-INPUT "NAND" GATE  
WITH OPEN COLLECTOR

MC5400/7400 series

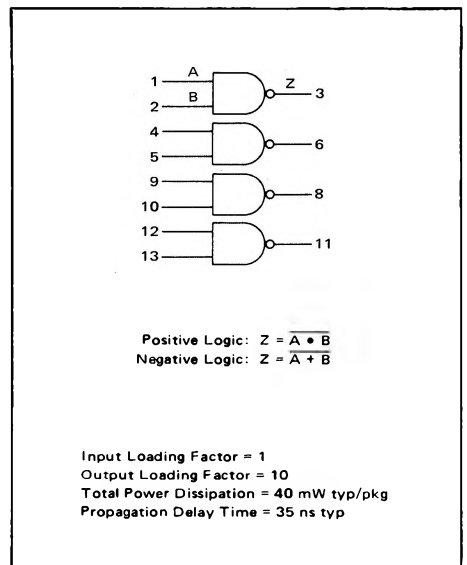
MC5403 • MC7403

Add Suffix L for TO-116 ceramic package (Case 632).  
Suffix P for TO-116 plastic package (Case 607) MC7403 only.

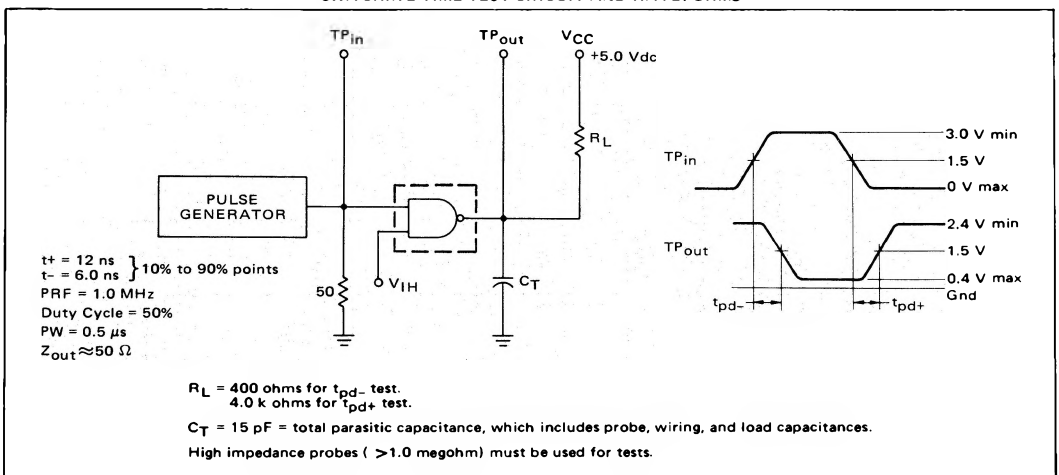


Device available only in dual in-line package.

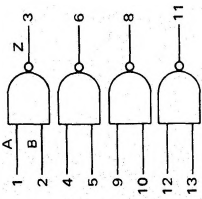
This device consists of four 2-input NAND gates with no output pullup circuits. It can be used where the Wired-OR function is required, or for driving discrete components.



SWITCHING TIME TEST CIRCUIT AND WAVEFORMS



# MC5403, MC7403 (continued)



V = V<sub>CC</sub> = Pin 14  
Gnd = Pin 7

## 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.

Characteristic	Symbol	Pin Under Test	MC5403 Test Limits -55 to +125°C		MC7403 Test Limits 0 to +70°C		TEST CURRENT/VOLTAGE VALUES (All Temperatures)													Pin 7 is grounded for all tests in addition to the pins listed below:	
			Min	Max	Min	Max	mA	Volts													
Input							I <sub>OL</sub>	V <sub>IL</sub>	V <sub>IH</sub>	V <sub>IHH</sub>	V <sub>R1</sub>	V <sub>R2</sub>	V <sub>th1</sub>	V <sub>th0</sub>	V <sub>CEX</sub>	V <sub>CC</sub>	V <sub>CCL</sub>	V <sub>CCH</sub>			
Forward Current	I <sub>F</sub>	A	-	-1.6	mAdc	-	-1.6	mAdc	-	B	-	-	-	-	-	-	-	-	V	*	
Leakage Current	I <sub>R1</sub>	A	-	40	μAdc	-	40	μAdc	-	A	-	-	-	-	-	-	-	-	V	B*	
	I <sub>R2</sub>	A	-	1.0	mAdc	-	1.0	mAdc	-	A	-	-	-	-	-	-	-	-	V	B*	
Output	V <sub>OL</sub>	Z	-	0.4	Vdc	-	0.4	Vdc	-	-	-	-	A, B	-	-	-	-	-	V	*	
Output Leakage Current	I <sub>CEX</sub>	Z	-	0.25	mAdc	-	0.25	mAdc	-	A	-	-	-	B	Z	-	-	-	V	*	
Power Requirements (Total Device)	I <sub>PDH</sub>	V	-	22	mAdc	-	22	mAdc	-	-	-	All Inputs	-	-	-	-	-	-	V	-	
Power-Supply Drain	I <sub>PDL</sub>	V	-	8.0	mAdc	-	8.0	mAdc	-	-	-	-	-	-	-	-	-	-	V	A, B*	
Switching Parameters																					
Turn-On Delay	t <sub>pd-</sub>	A, Z	-	15**	ns	-	15**	ns											V	-	-
Turn-Off Delay	t <sub>pd+</sub>	A, Z	-	45**	ns	-	45**	ns											V	-	-

\* Ground inputs to gates not under test.

\*\* Tested only at 25°C.