

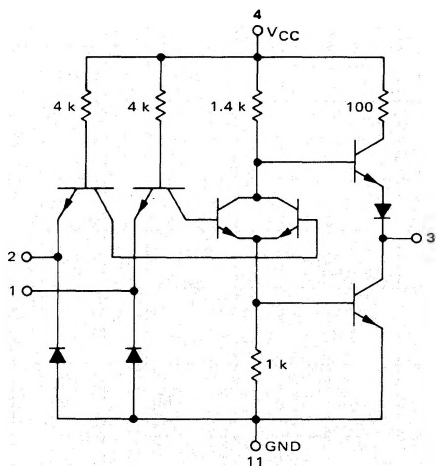
QUAD 2-INPUT "NOR" GATE

MCBC5400/MCB5400F series

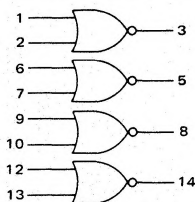
MCBC5402*
MCB5402F*



1/4 OF CIRCUIT SHOWN



This device consists of four 2-input NOR gates that is produced using beam lead sealed junction technology. These devices are particularly useful in highly reliable systems using hybrid beam lead assembly techniques or standard flat package assembly techniques.



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

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

Input Loading Factor = 1

Output Loading Factor = 10

Total Power Dissipation = 48 mW typ/pkg

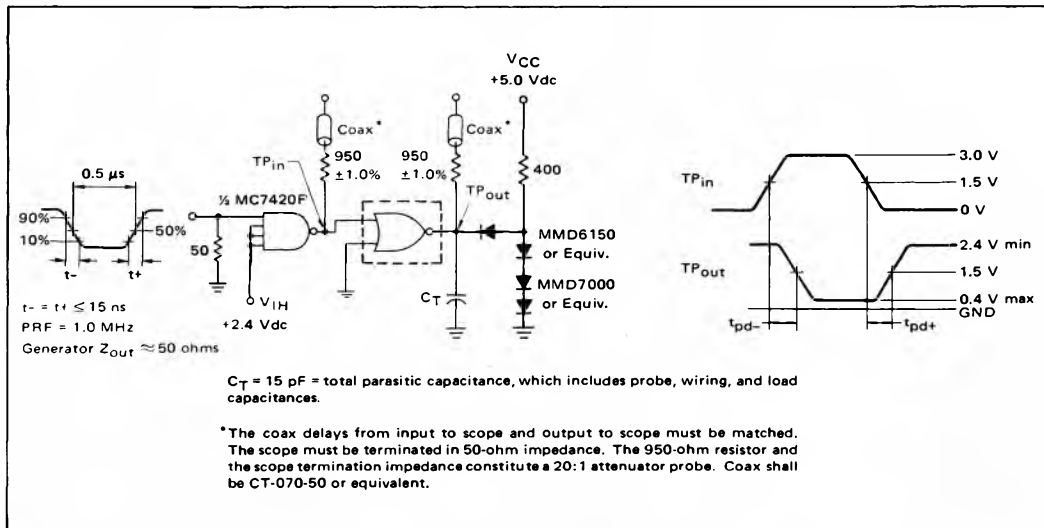
Propagation Delay Time = 10 ns typ

Package No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Beam No.	1	2	3	4	5	6	7	9	10	11	12	13	14	15

Pin numbers on drawings are for devices in the flat package.

VOLTAGE WAVEFORMS AND DEFINITIONS

SWITCHING TIME TEST CIRCUIT

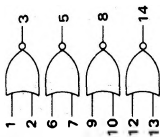


* F suffix = 1/4" x 1/4" ceramic package (Case 651) MCBC-prefixed devices are unencapsulated. See General Information section for package and chip details.

MCBC5402, MCB5402F (continued)

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. Pin numbers used are for devices in the flat package.



TEST CURRENT/VOLTAGE VALUES (All Temperatures)													
Characteristic	Symbol	Pin Under Test	Test Limits MCBC5402/ MCB5402F -55 to +125°C	mA									
				Volts									
Input	Forward Current	1	-1.6	mAdc	1	-1.6	mAdc	1	-1.6	mAdc	1	-1.6	mAdc
Leakage Current	1	-1.6	mAdc	1	-1.6	mAdc	1	-1.6	mAdc	1	-1.6	mAdc	1
Output	Output Voltage	3	0.4	Vdc	3	0.4	Vdc	3	0.4	Vdc	3	0.4	Vdc
Short-Circuit Current	1	-1.6	mAdc	1	-1.6	mAdc	1	-1.6	mAdc	1	-1.6	mAdc	1
Power Requirements (Total Device)	Power Supply Drain	4	27	mAdc	4	27	mAdc	4	27	mAdc	4	27	mAdc
Switching Parameters	Turn-On Delay	1,3	15**	ns	1,3	15**	ns	1,3	15**	ns	1,3	15**	ns
Turn-Off Delay	1,3	-22**	ns	1,3	-22**	ns	1,3	-22**	ns	1,3	-22**	ns	1,3

**Ground inputs to gates not under test.

***Tested only at 25°C.