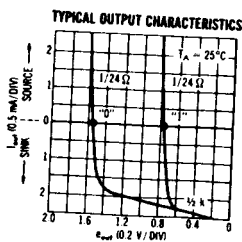
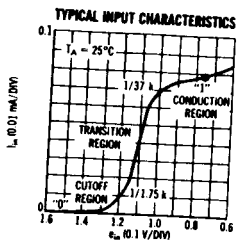
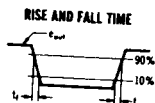
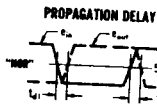
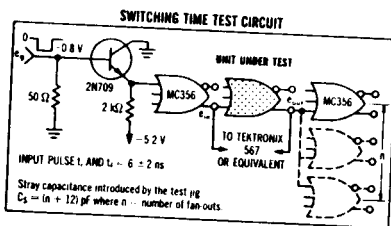
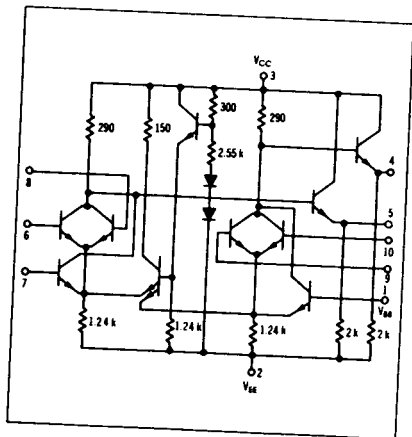


MC362A

Dual 3-input gate that provides the positive logic "NOR" function, and features an internal bias driver. This gate is available without bias driver as MC362.



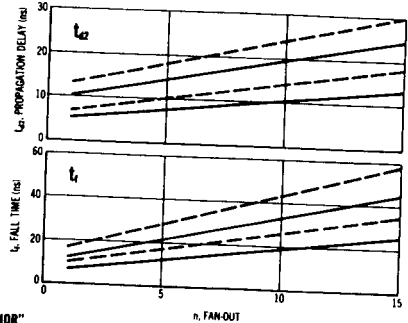
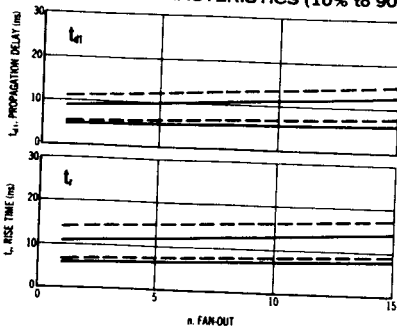
ELECTRICAL CHARACTERISTICS

Characteristic	Test Conditions						Test Limits						Unit			
	V _{CC} = 1%						0°C		+25°C		+75°C					
	V _{CC} Pin No.	V _{max} Pin No.	V _L Pin No.	V _{EE} Pin No.	ΔV_{OL} Pin No.	I _L Pin No.	Ground Pin No.	Symbol Pin No. m ()	Min	Max	Min	Max		Min	Max	
Power Supply Brake Current	---	---	---	1.2, 6, 7, 8, 9, 10	---	---	3	I _s (2)	---	17.7	---	17.0	---	16.4	mAdc	
Input Current	1	---	---	2, 6, 7, 8, 9, 10	---	---	3	I _{in} (1)	---	---	---	---	---	---	μAdc	
	4	---	---	1, 2, 7, 8, 9, 10	---	---	3	I _{in} (4)	---	---	---	100	---	---	μAdc	
	7	---	---	1, 2, 6, 7, 9, 10	---	---	3	I _{in} (7)	---	---	---	---	---	---	μAdc	
	8	---	---	1, 2, 6, 7, 9, 10	---	---	3	I _{in} (8)	---	---	---	---	---	---	μAdc	
	9	---	---	1, 2, 6, 7, 8, 10	---	---	3	I _{in} (9)	---	---	---	---	---	---	μAdc	
"NOR" Logical "1" Output Voltage	1	---	6	1, 2, 7, 8, 9, 10	---	---	3	V _{OL} (1)	-0.715	-0.850	-0.670	-0.795	-0.590	-0.725	Vdc	
	4	---	7	1, 2, 6, 8, 9, 10	---	---	3	V _{OL} (4)	---	---	---	---	---	---	Vdc	
	7	---	8	1, 2, 4, 7, 9, 10	---	---	3	V _{OL} (7)	---	---	---	---	---	---	Vdc	
	8	---	9	1, 2, 6, 7, 8, 10	---	---	3	V _{OL} (8)	---	---	---	---	---	---	Vdc	
	9	---	10	1, 2, 6, 7, 8, 9	---	---	3	V _{OL} (9)	---	---	---	---	---	---	Vdc	
"NOR" Logical "0" Output Voltage	1	6	---	1, 2, 7, 8, 9, 10	---	---	3	V _{OH} (1)	-1.510	-1.800	-1.465	-1.750	-1.395	-1.730	Vdc	
	4	7	---	1, 2, 6, 8, 9, 10	---	---	3	V _{OH} (4)	---	---	---	---	---	---	Vdc	
	7	8	---	1, 2, 4, 7, 9, 10	---	---	3	V _{OH} (7)	---	---	---	---	---	---	Vdc	
	8	9	---	1, 2, 6, 7, 8, 10	---	---	3	V _{OH} (8)	---	---	---	---	---	---	Vdc	
	9	10	---	1, 2, 6, 7, 8, 9	---	---	3	V _{OH} (9)	---	---	---	---	---	---	Vdc	
"NOR" Output Voltage Change	---	---	6	1, 2, 7, 8, 9, 10	3⊕	---	3	ΔV_{OL} (1)	-0.055	---	-0.055	---	-0.065	Volts		
"NOR" Inverter Switching Voltages	---	---	---	1, 2, 7, 8, 9, 10	4⊕	---	3	ΔV_{OL} (4)	-0.055	---	-0.055	---	-0.065	Volts		
	---	---	---	1, 2, 6, 8, 9, 10	7⊕	---	3	V _{OL} (5)	-0.51	---	-0.55	---	-0.63	Vdc		
	---	---	---	1, 2, 4, 7, 9, 10	8⊕	---	3	V _{OL} (5)	---	---	---	---	---	Vdc		
	---	---	---	1, 2, 6, 7, 8, 10	1⊕	---	3	V _{OL} (4)	---	---	---	---	---	Vdc		
	---	---	---	1, 2, 7, 8, 9, 10	9⊕	---	3	V _{OL} (4)	---	---	---	---	---	Vdc		
Switching Times	Pulse In	Pulse Out	---	---	---	---	---	---	---	---	---	---	---	---	---	
			---	---	---	---	---	---	---	---	---	---	---	---		
	Propagation Delay Time	6	5	---	1, 2, 7, 8, 9, 10	---	---	3	t _{PL} (5)	6.5	10.5	6.5	10.5	7.5	11.5	ns
		1	4	---	2, 6, 7, 8, 9, 10	---	---	3	t _{PL} (4)	6.5	10.5	6.5	10.5	7.5	11.5	ns
		4	5	---	1, 2, 7, 8, 9, 10	---	---	3	t _{PL} (5)	8.5	11.5	8.5	11.5	10.0	15.0	ns
Rise Time	6	5	---	2, 6, 7, 8, 9, 10	---	---	3	t _r (4)	8.5	11.5	8.5	11.5	10.0	15.0	ns	
	1	4	---	1, 2, 7, 8, 9, 10	---	---	3	t _r (5)	9.0	12.5	9.5	12.5	11.5	15.5	ns	
Fall Time	6	5	---	2, 6, 7, 8, 9, 10	---	---	3	t _f (4)	9.0	12.5	9.5	12.5	11.5	15.5	ns	
	1	4	---	1, 2, 7, 8, 9, 10	---	---	3	t _f (5)	8.5	14.0	9.0	14.0	11.5	17.0	ns	
---	---	---	2, 6, 7, 8, 9, 10	---	---	---	3	t _f (4)	8.5	14.0	9.0	14.0	11.5	17.0	ns	

Pins not listed are left open.

⊕ Input voltage is adjusted to obtain ΔV_{OL} "NOR" / ΔV_{OL} = 0. ⊕ Current test conditions: no load = 0, full load = -2.5 mAdc = 5%.

SWITCHING CHARACTERISTICS (10% to 90% distribution)



— 0°C and +25°C
- - - +75°C