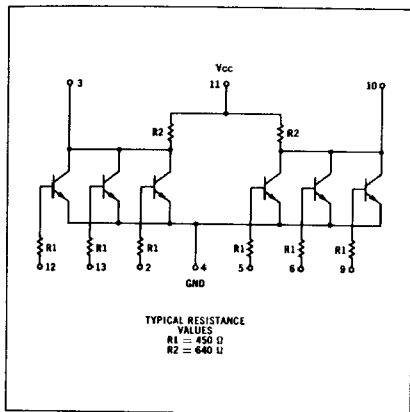


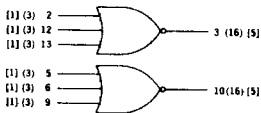
DUAL 3-INPUT GATES

PLASTIC MRTL MC700P/800P series

MC715P • MC815P



Two 3-input positive logic NOR gates in a single package. Each may be used independently, paralleled for increasing the number of inputs (subject to loading rules), or cross-coupled to form bistable elements.



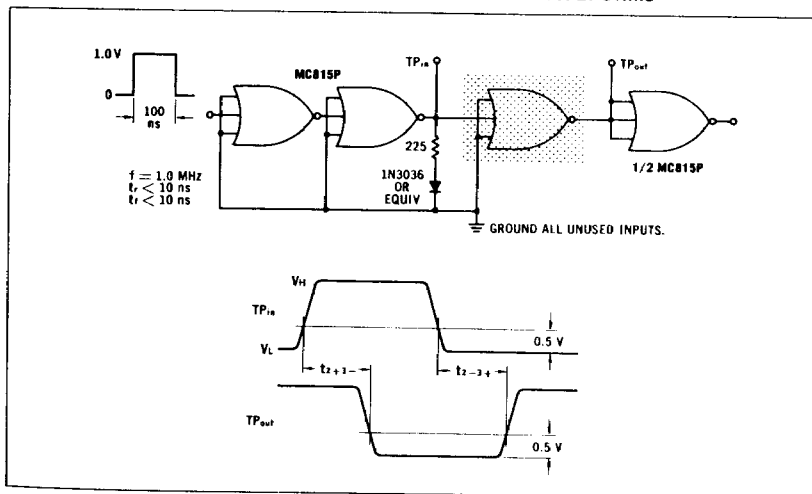
$3 = 2 + 12 + 13$

NUMBER IN PARENTHESES INDICATES nW MRTL LOADING FACTOR

NUMBER IN BRACKETS INDICATES MRTL LOADING FACTOR

$t_{pm} = 12$  ns  
 $P_d = 55$  mW (input High)  
 15 mW (input Low)

SWITCHING TIMES TEST CIRCUIT AND WAVEFORMS



Characteristic	Symbol	Pin Under Test	TEST VOLTAGE VALUES (Volts)														
			0°C			+25°C			+55°C			+75°C			+15°C		
			V <sub>in</sub>	V <sub>out</sub>	V <sub>sat</sub>	V <sub>in</sub>	V <sub>out</sub>	V <sub>sat</sub>	V <sub>in</sub>	V <sub>out</sub>	V <sub>sat</sub>	V <sub>in</sub>	V <sub>out</sub>	V <sub>sat</sub>	V <sub>in</sub>	V <sub>out</sub>	V <sub>sat</sub>
Input Current	I <sub>in</sub>	2 12 13	600	600	570	500	500	500	470	470	470	500	500	500	470	470	470
Output Current	I <sub>A5</sub>	3	3.00	3.00	2.85	2.65	2.65	2.65	2.50	2.50	2.50	2.65	2.65	2.65	2.50	2.50	2.50
Output Voltage	V <sub>out</sub>	3 3 3	500	400	400	400	400	400	400	400	400	400	400	400	400	400	400
Saturation Voltage	V <sub>CE(sat)</sub>	3 3 3	400	300	350	300	300	300	290	290	290	320	320	320	320	320	320
Switching Time	t <sub>on</sub> * t <sub>off</sub>	3, 13	-	48	-	-	-	-	48	-	-	-	-	-	-	-	11

Characteristic	Symbol	Pin Under Test	TEST VOLTAGE VALUES (Volts)														
			V <sub>in</sub>	V <sub>out</sub>	V <sub>sat</sub>	V <sub>in</sub>	V <sub>out</sub>	V <sub>sat</sub>	V <sub>in</sub>	V <sub>out</sub>	V <sub>sat</sub>	V <sub>in</sub>	V <sub>out</sub>	V <sub>sat</sub>			
Input Current	I <sub>in</sub>	2 12 13	0.960	0.930	1.80	0.880	0.880	0.880	1.80	0.880	0.880	1.80	0.880	0.880	1.80	0.880	0.880
Output Current	I <sub>A5</sub>	3	0.865	0.865	1.80	0.850	0.850	0.850	1.80	0.850	0.850	1.80	0.850	0.850	1.80	0.850	0.850
Output Voltage	V <sub>out</sub>	3 3 3	0.800	0.800	1.80	0.430	0.430	0.430	3.60	0.430	0.430	3.60	0.430	0.430	3.60	0.430	0.430

**ELECTRICAL CHARACTERISTICS**

Test procedures are shown for one gate only. The other gate is tested in the same manner.

Ground input pins of gate not under test. Other pins not listed are left open.