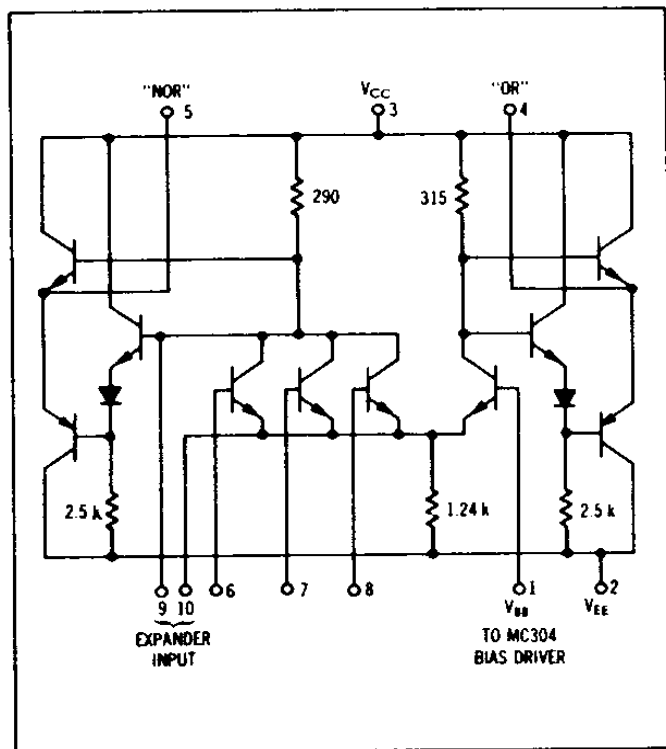
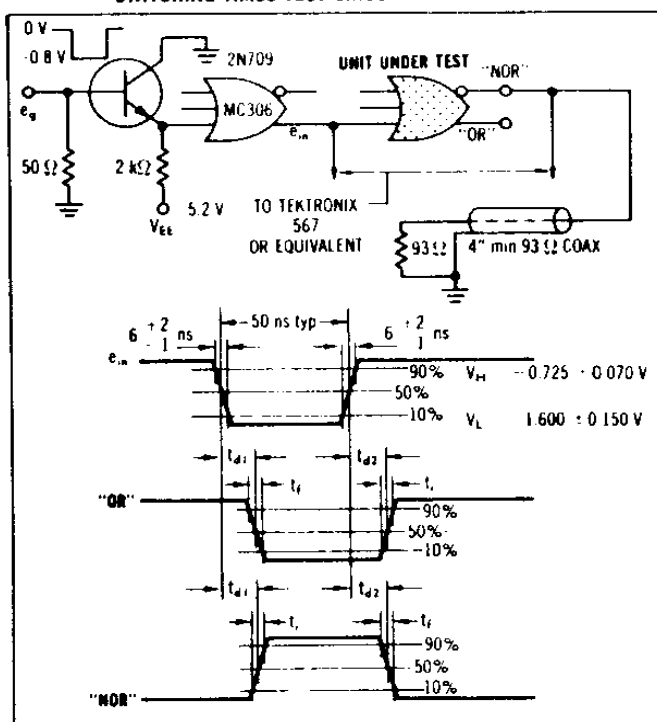


MC315

Line driver for driving lines of 93 ohms or greater while providing the positive logic "NOR" function and its complement simultaneously.



SWITCHING TIMES TEST CIRCUIT AND WAVEFORMS



ELECTRICAL CHARACTERISTICS

@ Test Temperature		Test Conditions V _{dc} ± 1%					Test Limits										Unit
							-55°C		+25°C		+125°C						
							Min	Max	Min	Max	Min	Max					
Characteristic	V _H Pin No	V _{I max} Pin No	V _L Pin No	V _{EE} Pin No	V _{BB} Pin No	I _{DD} Pin No	Ground Pin No	Symbol Pin No in ()									
Power Supply Drain Current	—	—	—	2, 6, 7, 8	1	4, 5	3	I _{DD} (2)		45		45		45	mAdc		
Input Current	6	—	—	2, 7, 8	1	—	3	I _{DD} (6)				100			μAdc		
	7	—	—	2, 6, 8	1	—	3	I _{DD} (7)				↓			↓		
	8	—	—	2, 6, 7	1	—	3	I _{DD} (8)				↓			↓		
"NOR" Logical "1" Output Voltage	—	—	6	2, 7, 8	1	4, 5	3	V _O (6)	0.805	0.945	0.670	0.795	0.505	0.655	V _{dc}		
	—	—	7	2, 6, 8	1	4, 5	3	V _O (7)	↓	↓	↓	↓	↓	↓	↓		
	—	—	8	2, 6, 7	1	4, 5	3	V _O (8)	↓	↓	↓	↓	↓	↓	↓		
"NOR" Logical "0" Output Voltage	—	6	—	2, 7, 8	1	4, 5	3	V _S (6)	1.540	1.850	1.450	1.750	1.320	1.675	V _{dc}		
	—	7	—	2, 6, 8	1	4, 5	3	V _S (7)	↓	↓	↓	↓	↓	↓	↓		
	—	8	—	2, 6, 7	1	4, 5	3	V _S (8)	↓	↓	↓	↓	↓	↓	↓		
"OR" Logical "1" Output Voltage	—	6	—	2, 7, 8	1	4, 5	3	V _S (6)	0.805	0.945	0.670	0.795	0.505	0.655	V _{dc}		
	—	7	—	2, 6, 8	1	4, 5	3	V _S (7)	↓	↓	↓	↓	↓	↓	↓		
	—	8	—	2, 6, 7	1	4, 5	3	V _S (8)	↓	↓	↓	↓	↓	↓	↓		
"OR" Logical "0" Output Voltage	—	6	—	2, 7, 8	1	4, 5	3	V _D (6)	1.540	1.850	1.450	1.750	1.320	1.675	V _{dc}		
	—	7	—	2, 6, 8	1	4, 5	3	V _D (7)	↓	↓	↓	↓	↓	↓	↓		
	—	8	—	2, 6, 7	1	4, 5	3	V _D (8)	↓	↓	↓	↓	↓	↓	↓		
Switching Times	Pulse In	Pulse Out							Typ	Max	Typ	Max	Typ	Max	ns		
Propagation Delay Time	6	5	—	2, 7, 8	1	—	3	t _{PL} (5)	10.0	20.0	10.0	20.0	15.0	30.0			
	6	4	—	2, 7, 8	1	—	3	t _{PH} (4)	12.0	25.0	12.0	25.0	17.0	34.0			
	6	5	—	2, 7, 8	1	—	3	t _{DL} (5)	12.0	25.0	12.0	25.0	13.0	30.0			
	6	4	—	2, 7, 8	1	—	3	t _{DL} (4)	10.0	20.0	10.0	20.0	11.0	25.0			
Rise Time	6	5	—	2, 7, 8	1	—	3	t _r (5)	13.0	25.0	13.0	25.0	16.0	31.0			
	6	4	—	2, 7, 8	1	—	3	t _r (4)	10.0	20.0	10.0	20.0	14.5	26.0			
Fall Time	6	5	—	2, 7, 8	1	—	3	t _f (5)	15.0	35.0	15.0	35.0	20.0	40.0			
	6	4	—	2, 7, 8	1	—	3	t _f (4)	15.0	35.0	15.0	35.0	20.0	40.0			

Pins not listed are left open. (1) Output is loaded with a 93-ohm resistor.