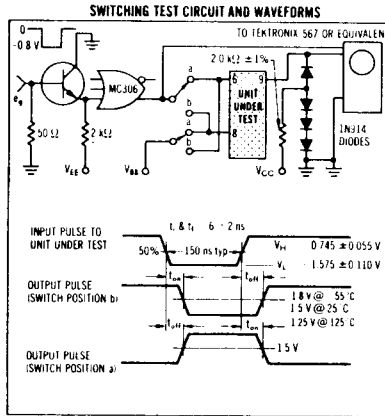
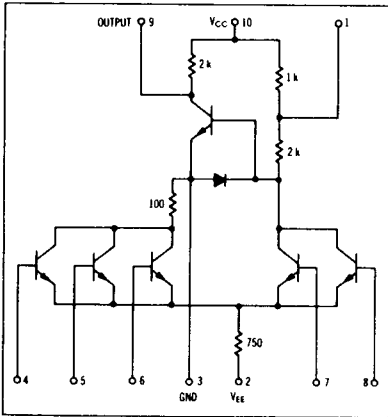


MECL-TO-SATURATED LOGIC  
TRANSLATOR

MECL MC300 series

MC317

Level translator intended for converting non-saturated MECL signal levels to saturated logic levels; provides "OR" or "NOR" logic depending on the bias arrangement used.



ELECTRICAL CHARACTERISTICS

Characteristic	Test Conditions								Ground Pin No	Symbol Pin No in ( )	Test Limits						Unit
	V <sub>dc</sub> = 1%										-55°C		+25°C		+125°C		
	V <sub>in</sub> Pin No	V <sub>in</sub> max Pin No	V <sub>in</sub> Pin No	V <sub>in</sub> min Pin No	V <sub>in</sub> Pin No	V <sub>CC</sub> Pin No	I <sub>c</sub> Pin No	mA dc			Min	Max	Min	Max	Min	Max	
Power Supply Inrush Current	—	6	—	2,4,5,7	8	10	—	3	I <sub>c</sub> (10)	7.0	7.0	7.0	6.8	6.8	mA dc		
Input Current	4	—	—	2,4,5,7	8	10	—	3	I <sub>i</sub> (4)	—	—	200	—	—	μA dc		
	5	—	—	2,4,5,7	8	10	—	3	I <sub>i</sub> (5)	—	—	—	—	—	μA dc		
	6	—	—	2,4,5,7	8	10	—	3	I <sub>i</sub> (6)	—	—	—	—	—	μA dc		
	7	—	—	2,4,5,8	6	10	—	3	I <sub>i</sub> (7)	—	—	—	—	—	μA dc		
Output Voltage, High	—	—	—	2,4,5,6,7	8	10	—	3	V <sub>OH</sub> (8)	—	5.8	—	—	—	V dc		
	—	—	—	2,4,5,8,8	7	10	—	3	V <sub>OH</sub> (8)	—	5.8	—	—	—	V dc		
Output Voltage, Low	—	4	—	2,4,5,7	8	10	9	3	V <sub>OL</sub> (8)	—	0.45	—	0.45	0.50	V dc		
	—	5	—	2,4,5,7	8	10	9	3	V <sub>OL</sub> (8)	—	—	—	—	—	V dc		
	—	6	—	2,4,5,7	8	10	9	3	V <sub>OL</sub> (8)	—	—	—	—	—	V dc		
	—	8	—	2,4,5,8	7	10	9	3	V <sub>OL</sub> (8)	—	—	—	—	—	V dc		
Switching Times	Pulse In	Pulse Out	—	2,4,5,7	8	10	—	3	I <sub>sw</sub>	Typ	Max	Typ	Max	Typ	Max	ns	
										27.5	40.0	27.5	35.0	29.5	35.0		
Turn-On Time	8	9	—	2,4,5,7	8	10	—	3	I <sub>sw</sub>	Typ	Max	Typ	Max	Typ	Max	ns	
										27.5	40.0	26.0	35.0	27.0	40.0		
Turn-Off Time	6	9	—	2,4,5,7	8	10	—	3	I <sub>sw</sub>	Typ	Max	Typ	Max	Typ	Max	ns	
										25.0	40.0	26.0	35.0	27.0	40.0		