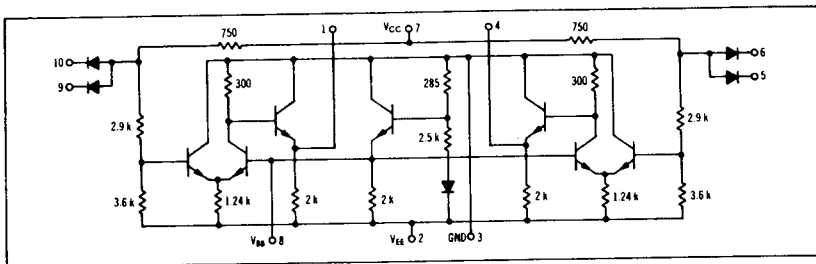


**SATURATED LOGIC-TO-MECL
DUAL TRANSLATOR**

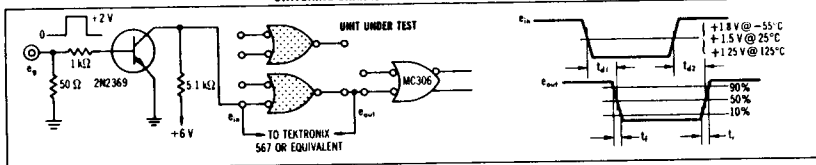
MECL MC300 series

MC318

Level translator intended for converting saturated logic levels to non-saturated MECL signal levels.



SWITCHING CHARACTERISTICS AND WAVEFORMS



ELECTRICAL CHARACTERISTICS

Characteristic	Test Conditions					Symbol Pin No in ()	Test Limits						Unit
	Vcc ± 1%						-55°C		+25°C		+125°C		
	Y	Y	V _{ee}	V _{cc}	Ground		Min	Max	Min	Max	Min	Max	
Power Supply Drain Current	---	---	2	7	3	I _c (7)	---	4.0	---	4.0	---	3.9	mA
Input Load Current	---	---	2	7	3	I _i (5)	---	---	---	6.0	---	---	mA
	---	---	2	7	3	I _i (8)	---	---	---	---	---	---	---
	---	---	2	7	3	I _i (9)	---	---	---	---	---	---	---
Input Reverse Current	---	---	2	5.7	3.6	I _s (5)	---	---	---	0.5	---	2.0	mA
	---	---	2	6.7	3.5	I _s (8)	---	---	---	---	---	---	---
	---	---	2	7.8	3.0	I _s (9)	---	---	---	---	---	---	---
"00" Logical "1" Output Voltage	---	5	2	7	3	V _o (4)	-0.825	-0.945	-0.690	-0.795	-0.525	-0.655	Vcc
	---	8	2	7	3	V _o (1)	---	---	---	---	---	---	Vcc
	---	10	2	7	3	V _o (1)	---	---	---	---	---	---	Vcc
"00" Logical "0" Output Voltage	5	---	2	7	3	V _o (4)	-1.360	-1.850	-1.465	-1.750	-1.340	-1.675	Vcc
	8	---	2	7	3	V _o (1)	---	---	---	---	---	---	Vcc
	10	---	2	7	3	V _o (1)	---	---	---	---	---	---	Vcc
Bias Voltage Output Current	---	---	2	7	3	V _{ee} (8)	---	---	---	---	---	---	Vcc
Switching Times	Pulse In	Pulse Out											
	5	4	2	7	3	t _r (4)	16.5	27.0	15.0	23.0	18.0	28.0	ns
Propagation Delay Time	5	4	2	7	3	t _p (1)	18.5	27.0	15.0	23.0	18.0	28.0	ns
	8	1	2	7	3	t _p (4)	13.0	20.0	15.5	23.0	20.0	31.0	
	5	4	2	7	3	t _p (4)	13.0	20.0	15.5	23.0	20.0	31.0	
	8	1	2	7	3	t _p (1)	8.0	15.0	7.0	13.0	9.5	16.0	
	5	4	2	7	3	t _p (1)	8.0	15.0	7.0	13.0	9.5	16.0	
Rise Time	5	4	2	7	3	t _r (4)	8.0	14.0	7.5	13.0	10.0	17.0	ns
	8	1	2	7	3	t _r (1)	8.0	14.0	7.5	13.0	10.0	17.0	
Fall Time	5	4	2	7	3	t _f (4)	8.0	14.0	7.5	13.0	10.0	17.0	ns
	8	1	2	7	3	t _f (1)	8.0	14.0	7.5	13.0	10.0	17.0	

Pins not listed are left open.