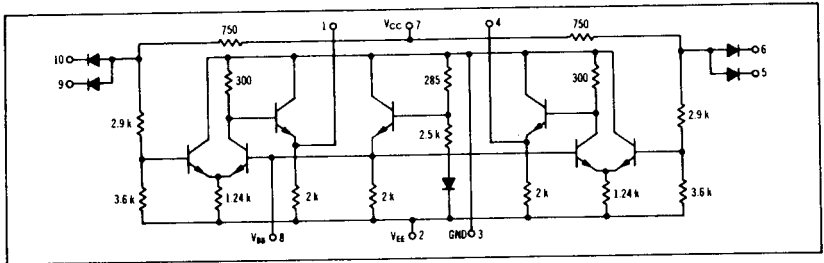


**SATURATED LOGIC-TO-MECL
DUAL TRANSLATOR**

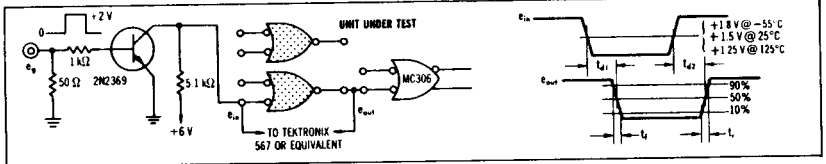
MECL MC300 series

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 Pin No	V Pin No	V _{EE} Pin No	V _{CC} Pin No	Ground Pin No	Symbol		Min	Max	Min	Max	Min	Max	
Power Supply Drain Current	---	---	2	7	3	Ic (7)	---	4.0	---	4.0	---	3.9	mAdc	
Input Load Current	---	---	2	7	3,5	Ii (5)	---	---	---	8.0	---	---	mAdc	
	---	---	2	7	3,6	Ii (6)	---	---	---	---	---	---	---	
	---	---	2	7	3,8	Ii (8)	---	---	---	---	---	---	---	
Input Reverse Current	---	---	2	5,7	3,6	Ii (5)	---	---	---	6.5	---	2.0	μAdc	
	---	---	2	6,7	3,5	Ii (6)	---	---	---	---	---	---	---	
	---	---	2	7,8	3,10	Ii (8)	---	---	---	---	---	---	---	
"00" Logical "1" Output Voltage	---	5	2	7	3	V _O (4)	-0.825	-0.945	-0.690	-0.795	-0.525	-0.655	Vdc	
	---	8	2	7	3	V _O (11)	---	---	---	---	---	---	---	
	---	10	2	7	3	V _O (13)	---	---	---	---	---	---	---	
"00" Logical "0" Output Voltage	5	---	2	7	3	V _O (4)	-1.560	-1.850	-1.465	-1.750	-1.340	-1.675	Vdc	
	8	---	2	7	3	V _O (11)	---	---	---	---	---	---	---	
	10	---	2	7	3	V _O (13)	---	---	---	---	---	---	---	
Bias Voltage Output Current	---	---	2	7	3	V _{BE} (8)	---	---	---	---	---	---	Vdc	
	---	---	2	7	3	V _{BE} (8)	-1.19	-1.32	-1.09	-1.22	-0.95	-1.06	Vdc	
Switching Times	Pulse In	Pulse Out	---	---	---	---	Typ	Max	Typ	Max	Typ	Max	ns	
	Propagation Delay Time	---	---	---	---	---	---	---	---	---	---	---	---	
Rise Time	5	4	2	7	3	t _r (4)	16.5	27.0	15.0	23.0	18.0	28.0	ns	
	9	1	2	7	3	t _r (11)	16.5	27.0	15.0	23.0	18.0	28.0	ns	
	5	4	2	7	3	t _r (4)	13.0	20.0	15.5	21.0	20.0	31.0	ns	
	9	1	2	7	3	t _r (11)	13.0	20.0	15.5	21.0	20.0	31.0	ns	
	5	4	2	7	3	t _r (4)	8.0	15.0	7.0	13.0	9.5	16.0	ns	
Fall Time	5	4	2	7	3	t _f (4)	8.0	15.0	7.0	13.0	9.5	16.0	ns	
	9	1	2	7	3	t _f (11)	8.0	14.0	7.5	13.0	10.0	17.0	ns	

Pins not listed are left open.