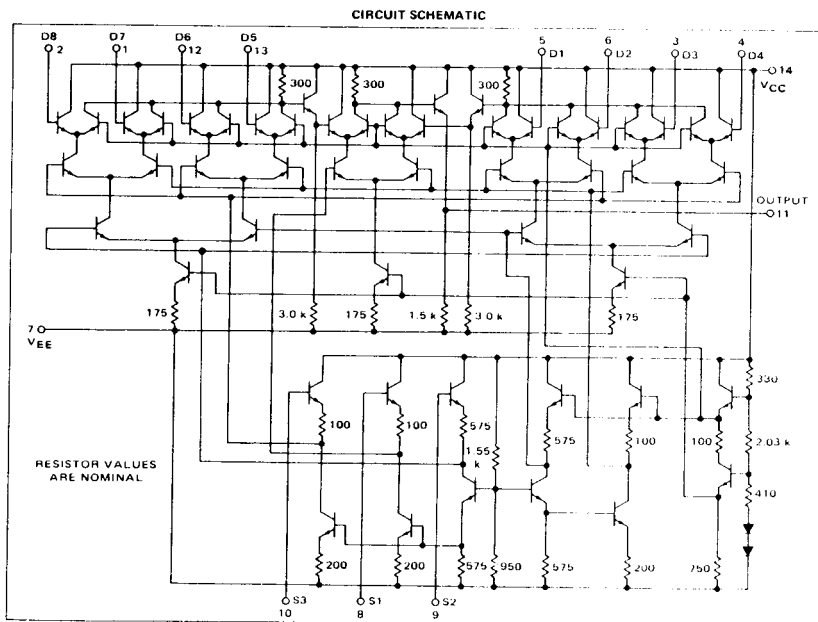
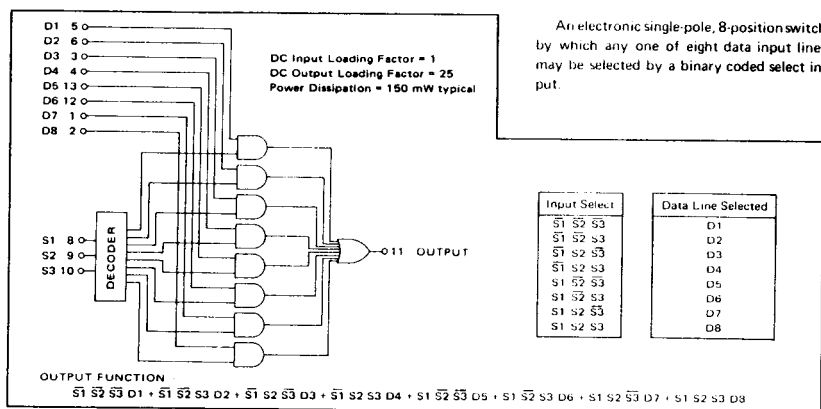


8 CHANNEL
DATA SELECTOR

MECL II MC1000/1200 series

MC1038
MC1238



MC1038, MC1238 (continued)

ELECTRICAL CHARACTERISTICS (continued)

ELECTRICAL CHARACTERISTICS (continued)																						
Characteristic	Symbol	Pin Under Test	MC1238 Test Limits						MC1038 Test Limits						TEST CURRENT VOLTAGE APPLIED TO PINS LISTED BELOW:		Pulse Out (+1.2 Vdc)					
			-55°C			+25°C			+75°C			0°C			+25°C			+75°C			V _{in} + 1.2 Vdc	V _{in} + 1.2 Vdc
Switching Times	t _{PL} -11-	11	6.5	9.0	7.0	10	9.0	12	ms	6.5	9.0	7.0	10	8.5	11	ns	10	8.9	1	2.3, 4.5, 6.7, 12, 13	11	14
Data Inputs	t _{PL} -11-	11	8.0	10	9.0	11	10	13	ms	6.5	11	9.0	11	9.5	12	ms	10	8.9	1	2.3, 4.5, 6.7, 12, 13	11	14
Propagation Delay	t _{PL} -11-	11	3.5	7.0	3.5	7.0	5.0	9.0	ms	3.5	7.0	3.5	7.0	5.0	8.0	ms	10	8.9	1	2.3, 4.5, 6.7, 12, 13	11	14
Rise Time	t _{PL} -11-	11	5.0	8.5	5.5	9.0	7.5	11	ms	5.5	9.0	5.5	9.0	6.0	10	ms	10	8.9	1	2.3, 4.5, 6.7, 12, 13	11	14
Fall Time	t _{PL} -11-	11	5.0	8.5	5.5	9.0	7.5	11	ms	5.5	9.0	5.5	9.0	6.0	10	ms	10	8.9	1	2.3, 4.5, 6.7, 12, 13	11	14
Set/Reset Inputs	t _{PL} -11-	11	5.5	9.0	6.0	9.0	7.0	10	ms	5.5	9.0	6.0	9.0	6.5	10	ms	10	8.9	1	2.3, 4.5, 6.7, 12, 13	11	14
Propagation Delay	t _{PL} -11-	11	5.5	9.0	6.0	9.0	7.0	10	ms	5.5	9.0	6.0	9.0	6.5	10	ms	10	8.9	1	2.3, 4.5, 6.7, 12, 13	11	14
	t _{PL} -11-	11	17	21	18	22	21	25	ms	18	22	18	22	19	23	ms	10	8.9	1	2.3, 4.5, 6.7, 12, 13	11	14
	t _{PL} -11-	11	17	21	18	22	21	25	ms	18	22	18	22	19	23	ms	10	8.9	1	2.3, 4.5, 6.7, 12, 13	11	14
	t _{PL} -11-	11	9.0	13	10	14	13	17	ms	9.5	14	10	14	11	15	ms	10	8.9	1	2.3, 4.5, 6.7, 12, 13	11	14
	t _{PL} -11-	11	9.0	13	10	14	13	17	ms	9.5	14	10	14	11	15	ms	10	8.9	1	2.3, 4.5, 6.7, 12, 13	11	14

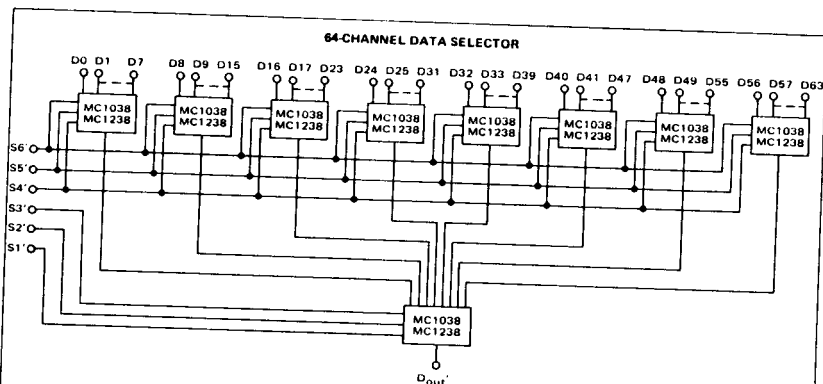
MC1038, MC1238 (continued)

APPLICATIONS INFORMATION

The MC1038/1238 "8" channel data selector is essentially a single-pole eight-position switch. The data applied to the input pins 1, 2, 3, 4, 5, 6, 12,

and 13 will be transferred to the output on pin 11 according to the binary select coding applied to pins 8, 9, 10.

The application shown is an example of the manner in which the "8" channel data selector may be used. Nine MC1038/1238 "8" channel data selectors are used to form a 64-bit multiplexer. The typical propagation delay in this application from the 64-bit input to the "8" channel data selector output is 14 ns.



TRUTH TABLE

S1'	S2'	S3'	S4'	S5'	S6'	Dout'
0	0	0	0	0	0	0
0	0	0	0	0	1	1
0	0	0	0	1	0	2
0	0	0	0	1	1	3
0	0	0	1	0	0	4
0	0	0	1	0	1	5
0	0	0	1	1	0	6
0	0	0	1	1	1	7
0	0	1	0	0	0	8
0	0	1	0	0	1	9
0	0	1	0	1	0	10
0	0	1	0	1	1	11
0	0	1	1	0	0	12
0	0	1	1	0	1	13
0	0	1	1	1	0	14
0	0	1	1	1	1	15
0	1	0	0	0	0	16
0	1	0	0	0	1	17
0	1	0	0	1	0	18
0	1	0	0	1	1	19
0	1	0	1	0	0	20
0	1	0	1	0	1	21

S1'	S2'	S3'	S4'	S5'	S6'	Dout'
0	1	0	1	1	0	22
0	1	0	1	1	1	23
0	1	1	0	0	0	24
0	1	1	0	0	1	25
0	1	1	0	1	0	26
0	1	1	0	1	1	27
0	1	1	1	0	0	28
0	1	1	1	0	1	29
0	1	1	1	1	0	30
0	1	1	1	1	1	31
1	0	0	0	0	0	32
1	0	0	0	0	1	33
1	0	0	0	1	0	34
1	0	0	0	1	1	35
1	0	0	1	0	0	36
1	0	0	1	0	1	37
1	0	0	1	1	0	38
1	0	1	0	0	0	39
1	0	1	0	0	1	40
1	0	1	0	1	0	41
1	0	1	0	1	1	42

S1'	S2'	S3'	S4'	S5'	S6'	Dout'
1	0	1	0	1	1	43
1	0	1	1	0	0	44
1	0	1	1	0	1	45
1	0	1	1	1	0	46
1	0	1	1	1	1	47
1	1	0	0	0	0	48
1	1	0	0	0	1	49
1	1	0	0	1	0	50
1	1	0	0	1	1	51
1	1	0	1	0	0	52
1	1	0	1	0	1	53
1	1	0	1	1	0	54
1	1	0	1	1	1	55
1	1	1	0	0	0	56
1	1	1	0	0	1	57
1	1	1	0	1	0	58
1	1	1	0	1	1	59
1	1	1	1	0	0	60
1	1	1	1	0	1	61
1	1	1	1	1	0	62
1	1	1	1	1	1	63