Electrical Characteristics over recommended operating free-air temperature range (unless otherwise noted).

Parameter		Conditions			DM54/74 08, 11			DM54/74 H08, H11, H21			DM54/74 L08, L11			DM54/74 LS08, LS11, LS21			DM54/74 S08, S11			Units
					Min	Typ(1)	Max	Min	Typ(1)	Max	Min	Typ(1)	Max	Min	Typ(1)	Max	Min	Typ(1)	Max	
V_{IH}	High Level Input Voltage				2			2			2			2			2			V
V_{IL}	Low Level Input Voltage			DM54			0.8			0.8			0.7			0.8			0.8	V
				DM74			0.8			0.8			0.7			0.8			0.8	
V_I	Input Clamp Voltage	V_{CC} = Min	I_I = −8 mA							−1.5			N/A							V
			I_I = −12 mA				−1.5						N/A							
			I_I = −18 mA										N/A			−1.5			−1.2	
I_{OH}	High Level Output Current						−800			−500			−200			−400			−1000	μA
V_{OH}	High Level Output Voltage	V_{CC} = Min, V_{IH} = 2 V, I_{OH} = Max		DM54	2.4	3.4		2.4	3.4		2.4	3.3		2.5	3.4		2.5	3.4		V
				DM74	2.4	3.4		2.4	3.4		2.4	3.2		2.7	3.4		2.7	3.4		
I_{OL}	Low Level Output Current			DM54			16			20			2			4			20	mA
				DM74			16			20			3.6			8			20	
V_{OL}	Low Level Output Voltage	V_{CC} = Min, V_{IL} = Max	I_{OL} = Max	DM54		0.2	0.4		0.2	0.4		0.15	0.3		0.25	0.4			0.5	V
				DM74		0.2	0.4		0.2	0.4		0.2	0.4		0.35	0.5			0.5	
			I_{OL} = 4 mA	DM74											0.25	0.4				
I_I	Input Current at Maximum Input Voltage	V_{CC} = Max	V_I = 5.5 V				1			1			0.1						1	mA
			V_I = 7 V													0.1				
I_{IH}	High Level Input Current	V_{CC} = Max	V_I = 2.4 V				40			50			10							μA
			V_I = 2.7 V													20			50	
I_{IL}	Low Level Input Current	V_{CC} = Max	V_I = 0.3 V										−0.18							mA
			V_I = 0.4 V				−1.6			−2						−0.36				
			V_I = 0.5 V																−2	
I_{OS}	Short Circuit Output Current	V_{CC} = Max (2)		DM54	−20		−55	−40		−100	−3		−15	−20		−100	−40		−100	mA
				DM74	−18		−55	−40		−100	−3		−15	−20		−100	−40		−100	
I_{CC}	Supply Current	V_{CC} = Max			See Table															

Note 1: All typical values are at V_{CC} = 5 V, T_A = 25°C.

Note 2: Not more than one output should be shorted at a time, and for DM54H/DM74H, DM54LS/DM74LS and DM54S/DM74S, duration of short circuit should not exceed one second.

Supply Currents

Device	I_{CCH} (mA) Total With Outputs High		I_{CCL} (mA) Total With Outputs Low	
	Typ	Max	Typ	Max
08	11	21	20	33
11	8	15	14	22
H08	28	40	42	64
H11	18	30	30	48
H21	12	20	20	32
L08	1.1	2.1	2.0	3.3
L11	1.0	1.5	1.6	2.2
LS08	2.4	4.8	4.4	8.8
LS11	1.8	3.6	3.3	6.6
LS21	1.2	2.4	2.2	4.4
S08	18	32	32	57
S11	13.5	24	24	42

Switching Characteristics at V_{CC} = 5 V, T_A = 25°C

Device	Conditions	t_{PLH} (ns) Propagation Delay Time Low-To-High Level Output			t_{PHL} (ns) Propagation Delay Time, High-To-Low Level Output		
		Min	Typ	Max	Min	Typ	Max
08, 11	C_L = 15 pF, R_L = 400 Ω		17.5	27		12	19
H08, H11 H21	C_L = 25 pF, R_L = 280 Ω		7.6	12		8.8	12
L08	C_L = 50 pF		45	90		45	90
L11	R_L = 4 kΩ		40	80		45	90
LS08, LS11 LS21	C_L = 15 pF, R_L = 2 kΩ	4	8	13	3	7.5	11
	C_L = 50 pF, R_L = 2 kΩ	6	11	18	5	11	18
S08, S11	C_L = 15 pF, R_L = 280 Ω	2.5	4.5	7	2.5	5	7.5
	C_L = 50 pF, R_L = 280 Ω	3	6	9	3	7.5	11