

74VHC374

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DC ELECTRICAL CHARACTERISTICS

Symbol	Parameter	Conditions	V _{CC} (V)	T _A = 25 °C			T _A = -40 °C to +85 °C		Unit
				Min	Typ	Max	Min	Max	
V _{IH}	HIGH Level								

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AC ELECTRICAL CHARACTERISTICS

Symbol	Parameter	Conditions	V _{CC} (V)	T _A = 25 °C			T _A = -40 °C to +85 °C		Unit	
				Min	Typ	Max	Min	Max		
t _{PLH} , t _{PHL}	Propagation Delay Time (CP to O _n)		C _L = 15 pF	3.3 ± 0.3	-	8.1	12.7	1.0	15.0	ns
			C _L = 50 pF		-	10.6	16.2	1.0	18.5	
			C _L = 15 pF	5.0 ± 0.5	-	5.4	8.1	1.0	9.5	ns
			C _L = 50 pF		-	6.9	10.1	1.0	11.5	
t _{PZL} , t _{PZH}	3-STATE Output Enable Time	R _L = 1 kΩ	C _L = 15 pF	3.3 ± 0.3	-	7.1	11.0	1.0	13.0	ns
			C _L = 50 pF		-	9.6	14.5	1.0	16.5	
			C _L = 15 pF	5.0 ± 0.5	-	5.1	7.6	1.0	9.0	ns
			C _L = 50 pF		-	6.6	9.6	1.0	11.0	
t _{PLZ} , t _{PHZ}	3-STATE Output Disable Time	R _L = 1 kΩ	C _L = 50 pF	3.3 ± 0.3	-	10.2	14.0	1.0	16.0	ns
			C _L = 50 pF	5.0 ± 0.5	-	6.1	8.8	1.0	10.0	
t _{OSLH} , t _{OSHL}	Output to Output Skew	(Note 6)	C _L = 50 pF	3.3 ± 0.3	-	-	1.5	-	1.5	ns
			C _L = 50 pF	5.0 ± 0.5	-	-	1.0	-	1.0	
f _{MAX}	Maximum Clock Frequency		C _L = 15 pF	3.3 ± 0.3	80	130	-	70	-	MHz
			C _L = 50 pF		55	85	-	50	-	
			C _L = 15 pF	5.0 ± 0.5	130	185	-	110	-	
			C _L = 50 pF		85	120	-	75	-	
C _{IN}	Input Capacitance	V _{CC} = Open		-	4	10	-	10	pF	
C _{OUT}	Output Capacitance	V _{CC} = 5.0 V		-	6	-	-	-	pF	
C _{PD}	Power Dissipation Capacitance	(Note 7)		-	32	-	-	-	pF	

6. Parameter guaranteed by design. t_{OSLH} = |t_{PLH} max - t_{PLH} min|; t_{OSHL} = |t_{PHL} max - t_{PHL} min|

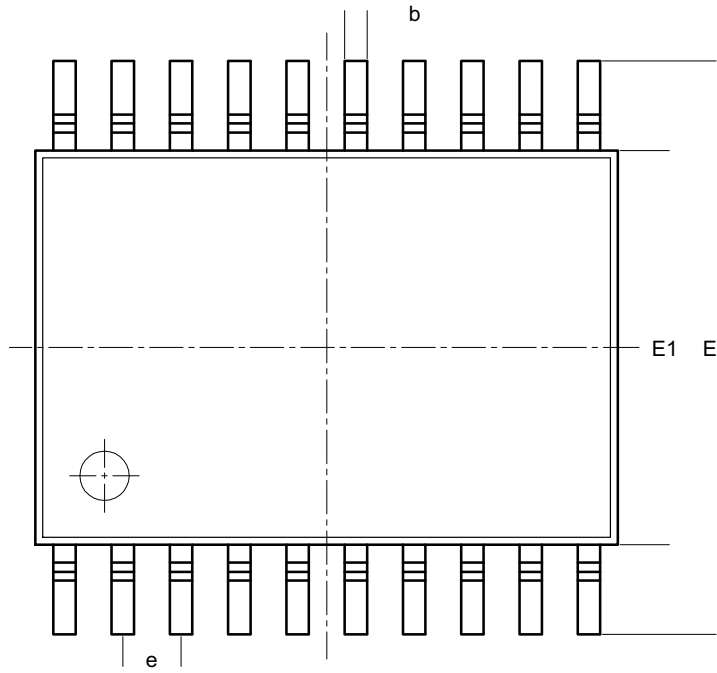
7. C_{PD} is defined as the value of the internal equivalent capacitance which is calculated from the operating current consumption without load. Average operating current can be obtained by the equation: I_{CC} (opr.) = C_{PD} · V_{CC} · f_{IN} + I_{CC}/8 (per F/F). The total C_{PD} when n pcs. of the Octal D Flip-Flop operates can be calculated by the equation: C_{PD} (total) = 20 + 12n.

AC OPERATING REQUIREMENTS

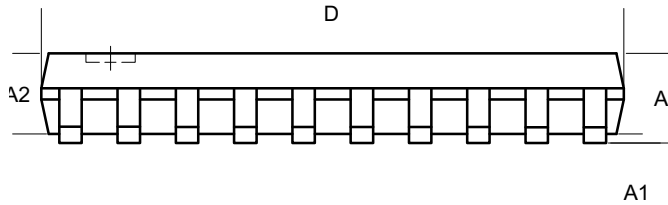
Symbol	Parameter	V _{CC} (V)	T _A = 25 °C			T _A = -40 °C to +85 °C		Unit
			Min	Typ	Max	Min	Max	
t _w (H), t _w (L)	Minimum Pulse Width (CP)	3.3 ± 0.3						

TSSOP20, 4.4x6.5
CASE 948AQ
ISSUE A

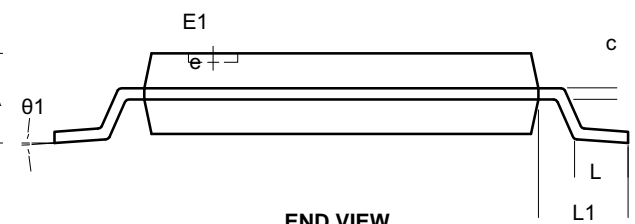
DATE 19 MAR 2009



TOP VIEW



SIDE VIEW



END VIEW

SYMBOL	MIN	NOM	MAX
A			
A1			
A2			
b			
c			
D			
E			
E1			
e			
L1E1A2			
θ_1			

c

D

E

E1

c

θ_1

L

L1

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