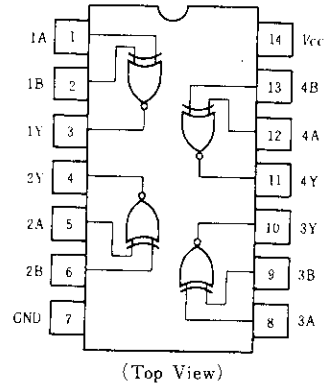


Quad. 2-input Exclusive-NOR Gates

FEATURES

- High Speed Operation
- High Output Current Fanout of 10 LSTTL Loads
- Wide Operating Voltage $V_{CC} = 2$ to 6V
- Low Input Current 1 μ A max.

PIN ARRANGEMENT



DC CHARACTERISTICS ($V_{CC} = 5V \pm 10\%$, $T_a = -40$ to $+85^\circ C$)

Item	Symbol	Test Condition	min	typ	max	Unit	
Input Voltage	V_{IH}	$V_{out} = 0.1V$ or $V_{CC} - 0.1V$, $I_{out} \leq 20\mu A$	$V_{CC} = 4.5V$	3.15	—	—	V
			$V_{CC} = 5.5V$	3.85	—	—	
	V_{IL}	$V_{out} = 0.1V$ or $V_{CC} - 0.1V$, $I_{out} \leq 20\mu A$	$V_{CC} = 4.5V$	—	—	1.35	V
			$V_{CC} = 5.5V$	—	—	1.65	
Output Voltage	V_{OH}	$V_{in} = V_{IH}$ or V_{IL} , $I_{out} \leq 20\mu A$	$V_{CC} - 0.05$	V_{CC}	—	V	
	V_{OL}	$V_{in} = V_{IH}$ or V_{IL} , $I_{out} \leq 20\mu A$	—	0.0	0.05	V	
Output Current	I_{OH}	$V_{in} = V_{IH}$ or V_{IL} , $V_{out} = V_{CC} - 0.8V$	—	—	-4.0	mA	
	I_{OL}	$V_{in} = V_{IH}$ or V_{IL} , $V_{out} = 0.4V$	4.0	—	—	mA	
Input Current	I_{in}	$V_{in} = V_{CC}$ or GND	—	± 0.00001	± 1.0	μA	
Quiescent Current	I_{CC}	$V_{in} = V_{CC}$ or GND, $I_{out} = 0\mu A$	$T_a = 25^\circ C$	—	—	1.0	μA
			$T_a = 85^\circ C$	—	—	10	

AC CHARACTERISTICS ($V_{CC} = 5V$, $T_a = 25^\circ C$, Input $t_r = t_f = 6ns$)

Item	Symbol	Test Condition	min	typ	max	Unit	
Propagation Delay Time	t_{PLH}	See test circuit and waveform	$C_L = 15pF$	—	—	25	ns
			$C_L = 50pF$	—	—	30	
	t_{PHL}		$C_L = 15pF$	—	—	25	
			$C_L = 50pF$	—	—	30	
Output Rise Time	t_{TLH}	$C_L = 15pF$	—	—	8	ns	
		$C_L = 50pF$	—	—	15		
Output Fall Time	t_{THL}	$C_L = 15pF$	—	—	8	ns	
		$C_L = 50pF$	—	—	15		