



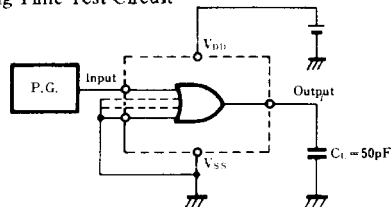
■ DC Characteristics (V<sub>SS</sub>=0V)

Item	V <sub>DD</sub> (V)	Symbol	Conditions	Ta = -40°C		Ta = 25°C		Ta = 85°C		Unit
				min.	max.	min.	max.	min.	max.	
Quiescent Power Supply Current	5	I <sub>DD</sub>	V <sub>i</sub> = V <sub>SS</sub> or V <sub>DD</sub>	—	1	—	1	—	7.5	μA
	10			—	2	—	2	—	15	
	15			—	4	—	4	—	30	
Output Voltage Low Level	5	V <sub>OL</sub>	V <sub>i</sub> = V <sub>SS</sub> or V <sub>DD</sub>  I <sub>o</sub>   < 1μA	—	0.05	—	0.05	—	0.05	V
	10			—	0.05	—	0.05	—	0.05	
	15			—	0.05	—	0.05	—	0.05	
Output Voltage High Level	5	V <sub>OH</sub>	V <sub>i</sub> = V <sub>SS</sub> or V <sub>DD</sub>  I <sub>o</sub>   < 1μA	4.95	—	4.95	—	4.95	—	V
	10			9.95	—	9.95	—	9.95	—	
	15			14.95	—	14.95	—	14.95	—	
Input Voltage Low Level	5	V <sub>IL</sub>	I <sub>o</sub>   < 1μA V <sub>o</sub> = 0.5V or 4.5V	—	1.5	—	1.5	—	1.5	V
	10			—	3	—	3	—	3	
	15			—	4	—	4	—	4	
Input Voltage High Level	5	V <sub>IH</sub>	I <sub>o</sub>   < 1μA V <sub>o</sub> = 0.5V or 4.5V	3.5	—	3.5	—	3.5	—	V
	10			7	—	7	—	7	—	
	15			11	—	11	—	11	—	
Output Current Low Level	5	I <sub>OL</sub>	V <sub>o</sub> = 0.4V, V <sub>i</sub> = 0 or 5V V <sub>o</sub> = 0.5V, V <sub>i</sub> = 0 or 10V V <sub>o</sub> = 1.5V, V <sub>i</sub> = 0 or 15V	0.52	—	0.44	—	0.36	—	mA
	10			1.3	—	1.1	—	0.9	—	
	15			3.6	—	3	—	2.4	—	
Output Current High Level	5	-I <sub>OH</sub>	V <sub>o</sub> = 4.6V, V <sub>i</sub> = 0 or 5V V <sub>o</sub> = 9.5V, V <sub>i</sub> = 0 or 10V V <sub>o</sub> = 13.5V, V <sub>i</sub> = 0 or 15V	0.52	—	0.44	—	0.36	—	mA
	10			1.3	—	1.1	—	0.9	—	
	15			3.6	—	3	—	2.4	—	
Output Current High Level	5	-I <sub>OH</sub>	V <sub>o</sub> = 2.5V, V <sub>i</sub> = 0 or 5V	1.7	—	1.4	—	1.1	—	mA
Input Leakage Current	15	±I <sub>i</sub>	V <sub>i</sub> = 0 or 15V	—	0.3	—	0.3	—	1	μA

■ Switching Characteristics (Ta = 25°C, V<sub>SS</sub> = 0V, C<sub>L</sub> = 50pF)

Item	V <sub>DD</sub> (V)	Symbol	min.	typ.	max.	Unit
Output Rise Time	5	t <sub>TLH</sub>	—	60	180	ns
	10		—	30	90	
	15		—	20	60	
Output Fall Time	5	t <sub>THL</sub>	—	60	180	ns
	10		—	30	90	
	15		—	20	60	
Propagation Delay Time	5	t <sub>PLH</sub>	—	65	195	ns
	10		—	30	90	
	15		—	25	75	
Propagation Delay Time	5	t <sub>PHL</sub>	—	65	195	ns
	10		—	30	90	
	15		—	20	60	
Input Capacitance		C <sub>i</sub>	—	—	7.5	pF

1. Switching Time Test Circuit



2. Waveforms

