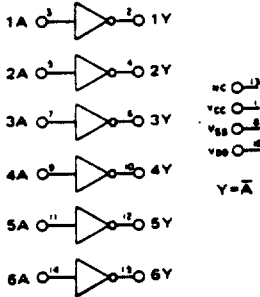


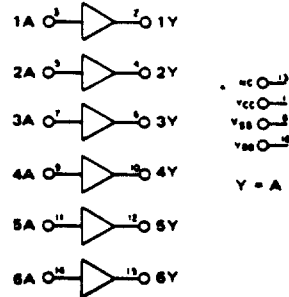
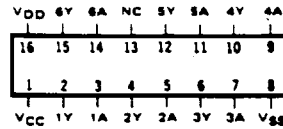
**SCL4009UB**

HEX INVERTING BUFFER/LEVEL SHIFTER



**SCL4010B**

HEX BUFFER/LEVEL SHIFTER



**STATIC CHARACTERISTICS: ( V<sub>SS</sub> = 0 V )**

PARAMETER	CONDITIONS	V <sub>DD</sub> (V <sub>Dc</sub> )	T <sub>LOW</sub> **		+ 25°C			T <sub>HIGH</sub> **		UNIT
			MIN	MAX	MIN	TYP	MAX	MIN	MAX	
QUIESCENT DEVICE CURRENT I <sub>DD</sub> SCL4009UB	V <sub>IN</sub> = V <sub>SS</sub> OR V <sub>DD</sub>	5		0.25		0.005	0.25		7.5	μA <sub>Dc</sub>
		10		0.5		0.01	0.5		15	
		15		1		0.02	1		30	
QUIESCENT DEVICE CURRENT I <sub>DD</sub> SCL4010B	V <sub>IN</sub> = V <sub>SS</sub> OR V <sub>DD</sub>	5		1		0.005	1		30	μA <sub>Dc</sub>
		10		2		0.01	2		60	
		15		4		0.02	4		120	
MINIMUM INPUT HIGH VOLTAGE V <sub>IH</sub> SCL4009UB	V <sub>OL</sub> = 0.5V V <sub>OL</sub> = 1.0V V <sub>OL</sub> = 1.5V  I <sub>O</sub>   ≤ 1μA	5		4		2.75	4		4	V <sub>Dc</sub>
		10		8		5.5	8		8	
		15		12		8.25	12		12	
MAXIMUM INPUT LOW VOLTAGE V <sub>IL</sub> SCL4009UB	V <sub>OH</sub> = 3.8V V <sub>OH</sub> = 7.2V V <sub>OH</sub> = 10.8V  I <sub>O</sub>   ≤ 1μA	5	1		1	2.25		1		V <sub>Dc</sub>
		10	2		2	4.5		2		
		15	2.5		2.5	6.75		2.5		
OUTPUT HIGH CURRENT (SOURCE) I <sub>OH</sub>	V <sub>OH</sub> = 4.6V V <sub>OH</sub> = 9.5V V <sub>OH</sub> = 13.5V	5	-0.25	-0.2				-0.14		mA <sub>Dc</sub>
		10	-0.62	-0.5				-0.35		
		15	-1.9	-1.5				-1.1		
OUTPUT LOW CURRENT (SINK) I <sub>OL</sub>	V <sub>OL</sub> = 0.4V V <sub>OL</sub> = 0.5V V <sub>OL</sub> = 1.5V	5	3.7		3	4		2.1		mA <sub>Dc</sub>
		10	9.9		8	10		5.6		
		15	29.8		24	36		16.8		

Note: \*T<sub>LOW</sub> = -55°C for C / H devices, -40°C for E / S devices, \*\*T<sub>HIGH</sub> = +125°C for C / H devices, +85°C for E / S devices.

**SCL4009UB**

HEX INVERTING BUFFER/LEVEL SHIFTER

**SCL4010B**

HEX BUFFER/LEVEL SHIFTER

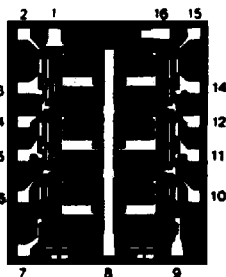
**DYNAMIC CHARACTERISTICS: ( CL = 50pF, TA = 25°C )**

PARAMETER	V <sub>DD</sub> V <sub>dc</sub>	V <sub>CC</sub> V <sub>dc</sub>	MINIMUM	TYPICAL	MAXIMUM	UNIT
PROPAGATION DELAY TIME $t_{PLH}$ DRIVING CMOS	5	5		60	120	ns
	10	10		35	70	
	15	15		28	56	
PROPAGATION DELAY TIME $t_{PHL}$ DRIVING CMOS	5	5		45	90	ns
	10	10		20	40	
	15	15		15	30	
PROPAGATION DELAY TIME $t_{PLH}$ DRIVING TTL/DTL	5	5		30	60	ns
	10	5		18	36	
	15	5		12	24	
PROPAGATION DELAY TIME $t_{PHL}$ DRIVING TTL/DTL	5	5		35	70	ns
	10	5		15	30	
	15	5		10	20	
OUTPUT TRANSITION TIME $t_{TLH}$	5	5		150	300	ns
	10	10		75	150	
	15	15		60	120	
OUTPUT TRANSITION TIME $t_{THL}$	5	5		30	60	ns
	10	10		20	40	
	15	15		12	24	
INPUT CAPACITANCE C <sub>IN</sub> SCL4009UB SCL4010B				10 5	15 7.5	pF

**DIE DRAWING**

**SCL4009UB**

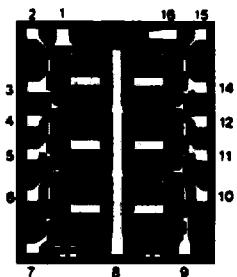
60 x 74 mils



**DIE DRAWING**

**SCL4010B**

60 x 74 mils



**Note:** Refer to "SCL4000B SERIES FAMILY SPECIFICATIONS" for remaining Dynamic & Static Characteristics, and, for recommended and maximum operating conditions.