

**Features**

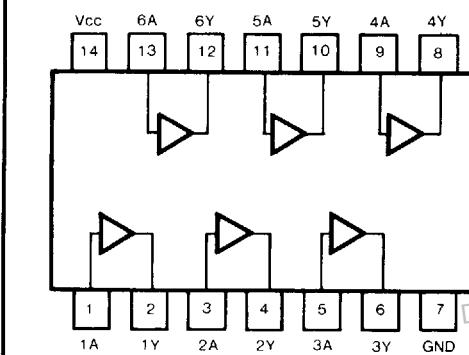
- High Output Voltage(30V)
- High Speed( $t_{PD}=12\text{ nS}$  typical)
- Low Power Dissipation ( $P_D=13\text{mW}$  per Gate)

**Description**

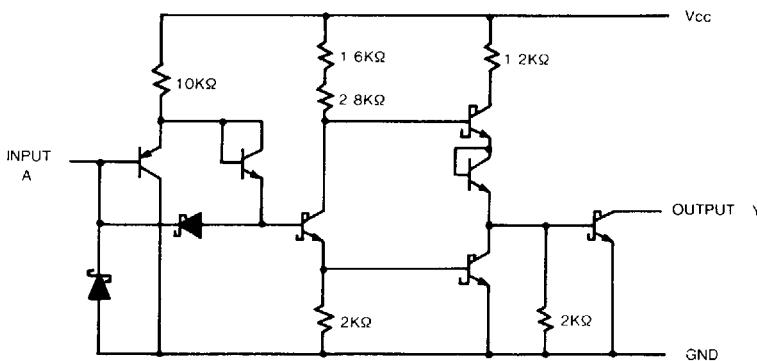
This device contains hex non inverted buffers with open-collector. It performs the Boolean function  $Y=A$  in positive Logic.

**Function Table(each inverter)**

INPUT	OUTPUT
A	Y
H L	H L

**Pin Configuration**

Suffix-Blank Plastic Dual In Line Package  
Suffix-J Ceramic Dual In Line Package

**Circuit Schematics (each inverter)****Absolute Maximum Ratings**

- Supply voltage, Vcc ..... www.DataSheet4U.com 7V
- Input voltage ..... 5.5V
- Output voltage ..... 30V
- Operating free-air temperature range 54LS ..... -55°C to 125°C
- 74LS ..... 0°C to 70°C
- Storage temperature range ..... -65°C to 150°C

**Recommended Operating Conditions**

SYMBOL	PARAMETER	MIN	NOM	MAX	UNIT
V <sub>CC</sub>	Supply voltage	54	4.5	5	5.5
		74	4.75	5	5.25
V <sub>OH</sub>	High-level output voltage	54, 74		30	V
I <sub>OL</sub>	Low-level output current	54		30	mA
		74		40	
T <sub>A</sub>	Operating free-air temperature	54	-55	125	°C
		74	0	70	

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

SYMBOL	PARAMETER	TEST CONDITIONS		MIN	TYP (Note 1)	MAX	UNIT
V <sub>IH</sub>	High-level input voltage			2			V
V <sub>IL</sub>	Low-level input voltage		54		0.8	0.8	V
			74		0.8		
V <sub>IK</sub>	Input clamp voltage	V <sub>CC</sub> =Min, I <sub>OL</sub> =-12mA				-1.5	V
I <sub>OH</sub>	High-level output current	V <sub>CC</sub> =Min, V <sub>IH</sub> =Min, V <sub>OH</sub> =Max				250	μA
V <sub>OL</sub>	Low-level output voltage	V <sub>CC</sub> =Min	I <sub>OL</sub> =16mA		0.4	0.7	V
		V <sub>IL</sub> =Max	I <sub>OL</sub> =Max		0.7		
I <sub>I</sub>	Input current at maximum input voltage	V <sub>CC</sub> =Max, V <sub>I</sub> =5.5V				1	mA
I <sub>IH</sub>	High-level input current	V <sub>CC</sub> =Max, V <sub>I</sub> =2.7V				20	μA
I <sub>IL</sub>	Low-level input current	V <sub>CC</sub> =Max, V <sub>I</sub> =0.4V				-0.2	mA
I <sub>CCH</sub>	Supply current	Total with outputs high	V <sub>CC</sub> =Max		7	14	mA
		Total with outputs low	V <sub>CC</sub> =Max		25	45	mA

Note 1. All typical values are at V<sub>CC</sub>=5V, T<sub>A</sub>=25°C**Switching Characteristics, V<sub>CC</sub>=5V, T<sub>A</sub>=25°C**

SYMBOL	PARAMETER	TEST CONDITION#	MIN	TYP	MAX	UNIT
t <sub>PLH</sub>	Propagation delay time, low-to-high-level output	C <sub>L</sub> =15pF, R <sub>L</sub> =110Ω		www.DataSheet4U.com		ns
	Propagation delay time, high-to-low-level output				18	

#For load circuit and voltage waveforms, see page 3-11