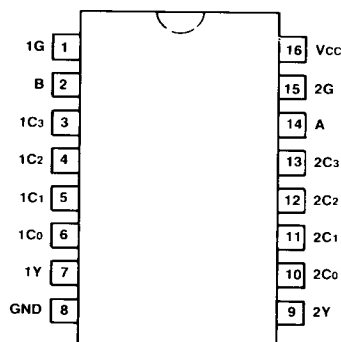


Dual 4- to 1-Line Data Selector/Multiplexer

The LS153 is a bipolar, NPN, sealed-junction, silicon integrated circuit. It is manufactured in low-power Schottky technology and is available in a wire-bonded, 16-pin plastic DIP or surface mount package.



Truth Table

Select Inputs*		Data Inputs				Strobe	Output
B	A	C0	C1	C2	C3	G	Y
X	X	X	X	X	X	H	L
L	L	L	X	X	X	L	L
L	L	H	X	X	X	L	H
L	H	X	L	X	X	L	L
L	H	X	H	X	X	L	H
H	L	X	X	L	X	L	L
H	L	X	X	H	X	L	H
H	H	X	X	X	L	L	L
H	H	X	X	X	H	L	H

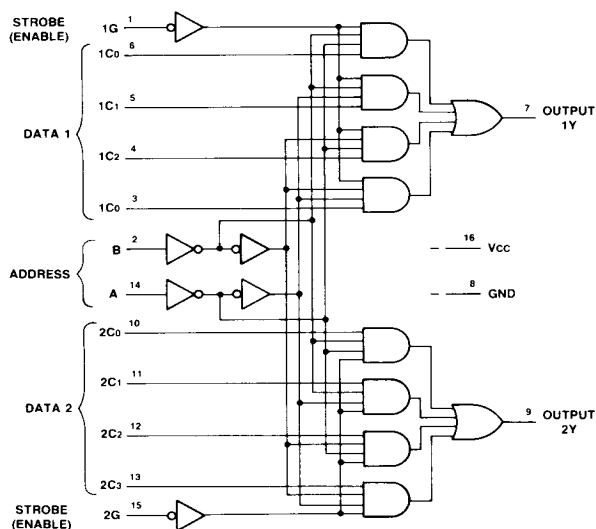
* Select inputs A and B are common to both sections.

H = High Level

L = Low Level

X = Irrelevant

Logic Diagram



Electrical Characteristics

$V_{CC} = 5.0 \pm 0.5$ V, $T_A = -55$ to $+125^\circ\text{C}$ (WA-LS)

$V_{CC} = 5.0 \pm 0.25$ V, $T_A = 0$ to 70°C (WP90348L2)

$V_{CC} = 5.0 \pm 0.5$ V, $T_A = -40$ to $+85^\circ\text{C}$ (WA-LSD, WP91404L5)

Parameter	Symbol	WA-LS		WP, WA-LSD		Units
		Min	Max	Min	Max	
Output Voltage, $V_{CC} = 4.5$ V (WA-LS), 4.75 V (WP, WA-LSD)						
Low, $I_{OL} = 4.0$ mA	V_{OL}	—	0.4	—	0.4	V
$I_{OL} = 8.0$ mA	V_{OL}	—	0.5	—	0.5	V
High, $I_{OH} = -0.4$ mA	V_{OH}	2.5	—	2.7	—	V
Input Voltage, $V_{CC} = 4.5$ V (WA-LS), 4.75 V (WP, WA-LSD)						
Low	V_{IL}	—	0.7	—	0.8*	V
High	V_{IH}	2.0	7.5	2.0	5.5	V
Clamp, $I_{in} = -18.0$ mA	V_{IK}	—	-1.5	—	-1.5	V
Input Current, $V_{CC} = 5.5$ V (WA-LS), 5.25 V (WP, WA-LSD)						
Low, $V_{IL} = 0.4$ V	I_{iL}	—	-0.4	—	-0.4	mA
High, $V_{IH} = 2.7$ V	I_{iH}	—	20.0	—	20.0	μA
@ V_i max, $V_i = 7.0$ V (WA-LS), 5.5 V (WP, WA-LSD)	I_i	—	0.1	—	0.1	mA
Output Current, $V_{CC} = 5.5$ V (WA-LS), 5.25 V (WP, WA-LSD)						
Short-Circuit	I_{OS}	-20.0	-100.0	-20.0	-100.0	mA
Supply Current, $V_{CC} = 5.5$ V (WA-LS), 5.25 V (WP, WA-LSD)						
Outputs Open, Inputs Low	I_{CC}	—	10.0	—	10.0	mA

* WA-LSD, WP91404L5: $V_{IL} = 0.7$ V

