

LS86

Quad 2-Input Exclusive OR Gate

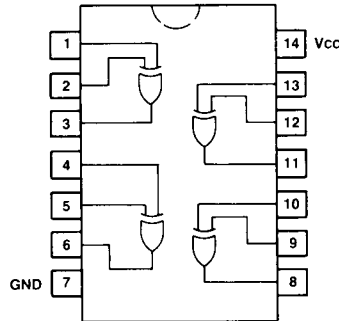
The LS86 is a bipolar, NPN, sealed-junction, silicon integrated circuit. It is manufactured in low-power Schottky technology and is available in a wire-bonded, 14-pin plastic DIP or surface mount package.

Truth Table

Inputs		Output
L	L	L
L	H	H
H	L	H
H	H	L

H = High Voltage Level

L = Low Voltage Level



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 (WP90307L9)

$V_{CC} = 5.0 \pm 0.5$ V, $T_A = -40$ to $+85^\circ\text{C}$ (WA-LSD, WP91400L2)

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}	—	-0.8	—	-0.8	mA
High, $V_{IH} = 2.7$ V	I_{IH}	—	40.0	—	40.0	μA
@ V_I max, $V_I = 7.0$ V	I_I	—	0.2	—	0.2	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)	I_{CC}	—	10.0	—	10.0	mA

* WA-LSD, WP91400L2: $V_{IL} = 0.7$ V

