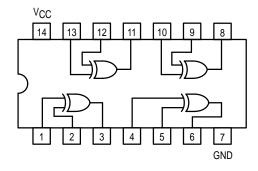


QUAD 2-INPUT EXCLUSIVE OR GATE



TRUTH TABLE

ll.	OUT			
Α	В	Z		
L	L	L		
L	Н	Н		
Н	L	Н		
Н	Н	L		

SN54/74LS86

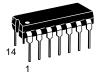
QUAD 2-INPUT EXCLUSIVE OR GATE

LOW POWER SCHOTTKY



J SUFFIX

CERAMIC CASE 632-08



N SUFFIX

PLASTIC CASE 646-06



D SUFFIX

SOIC CASE 751A-02

ORDERING INFORMATION

SN54LSXXJ SN74LSXXN SN74LSXXD Ceramic Plastic SOIC

GUARANTEED OPERATING RANGES

Symbol	Parameter		Min	Тур	Max	Unit
VCC	Supply Voltage	54 74	4.5 4.75	5.0 5.0	5.5 5.25	V
T _A	Operating Ambient Temperature Range	54 74	-55 0	25 25	125 70	°C
loн	Output Current — High	54, 74			-0.4	mA
lOL	Output Current — Low	54 74			4.0 8.0	mA

SN54/74LS86

$\textbf{DC CHARACTERISTICS OVER OPERATING TEMPERATURE RANGE} \ (\textbf{unless otherwise specified})$

			Limits						
Symbol	Parameter		Min	Тур	Max	Unit	Test Conditions		
VIH	Input HIGH Voltage		2.0			V	Guaranteed Input HIGH Voltage for All Inputs		
V _{IL} Inp	Input LOW Voltage	54			0.7	V	Guaranteed Input	LOW Voltage for	
		74			0.8	V	All Inputs		
VIK	Input Clamp Diode Voltage			-0.65	-1.5	V	$V_{CC} = MIN, I_{IN} = -18 \text{ mA}$		
V _{OH}	Output HIGH Voltage 54 74	54	2.5	3.5		V	V _{CC} = MIN, I _{OH} = MAX, V _{IN} = V _{IH} or V _{IL} per Truth Table		
		74	2.7	3.5		V			
VOL	Output LOW Voltage	54, 74		0.25	0.4	V	$I_{OL} = 4.0 \text{ mA}$ $V_{CC} = V_{CC} \text{ M}$ $V_{IN} = V_{IL} \text{ or } V_{IN}$		
		74		0.35	0.5	V	I _{OL} = 8.0 mA	per Truth Table	
I _{IH} Input HIGH Current					40	μΑ	$V_{CC} = MAX$, $V_{IN} = 2.7 V$		
					0.2	mA	V _{CC} = MAX, V _{IN} = 7.0 V		
I _{IL}	Input LOW Current				-0.8	mA	$V_{CC} = MAX$, $V_{IN} = 0.4 V$		
los	Short Circuit Current (Note 1)		-20		-100	mA	V _{CC} = MAX		
ICC	Power Supply Current				10	mA	V _{CC} = MAX		

Note 1: Not more than one output should be shorted at a time, nor for more than 1 second.

AC CHARACTERISTICS $(T_A = 25^{\circ}C)$

		Limits				
Symbol	Parameter	Min	Тур	Max	Unit	Test Conditions
^t PLH ^t PHL	Propagation Delay, Other Input LOW		12 10	23 17	ns	V _{CC} = 5.0 V
^t PLH ^t PHL	Propagation Delay, Other Input HIGH		20 13	30 22	ns	C _L = 15 pF