

✓ **54S/74S135** 011084

QUAD EXCLUSIVE-OR/NOR GATE

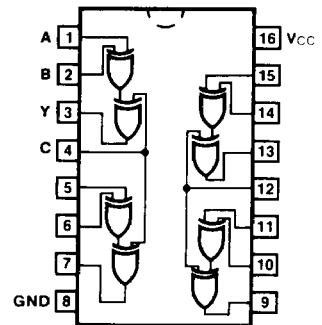
ORDERING CODE: See Section 9

PKGS	PIN OUT	COMMERCIAL GRADE	MILITARY GRADE	PKG TYPE
		$V_{CC} = +5.0 \text{ V} \pm 5\%$, $T_A = 0^\circ \text{C to } +70^\circ \text{C}$	$V_{CC} = +5.0 \text{ V} \pm 10\%$, $T_A = -55^\circ \text{C to } +125^\circ \text{C}$	
Plastic DIP (P)	A	74S135PC		9B
Ceramic DIP (D)	A	74S135DC	54S135DM	6B
Flatpak (F)	A	74S135FC	54S135FM	4L

INPUT LOADING/FAN-OUT: See Section 3 for U.L. definitions

PINS	54/74S (U.L.) HIGH/LOW
Inputs	1.25/1.25
Outputs	25/12.5

CONNECTION DIAGRAM PINOUT A



TRUTH TABLE

INPUTS			OUTPUT
A	B	C	Y
L	L	L	L
L	H	L	H
H	L	L	H
H	H	L	L
L	L	H	H
L	H	H	L
H	L	H	L
H	H	H	H

H = HIGH Voltage Level
L = LOW Voltage Level

DC AND AC CHARACTERISTICS: See Section 3*

SYMBOL	PARAMETER	54/74S		UNITS	CONDITIONS
		Min	Max		
I_{CC}	Power Supply Current		99	mA	$V_{CC} = \text{Max}, V_{IN} = \text{Gnd}$
t_{PLH} t_{PHL}	Propagation Delay from A or B to Y		13 10	ns	A or B = L, C = L Fig. 3-1, 3-5
t_{PLH} t_{PHL}	Propagation Delay from A or B to Y		12 13.5	ns	A or B = H, C = L Fig. 3-1, 3-4
t_{PLH} t_{PHL}	Propagation Delay from A or B to Y		13 10	ns	A or B = L, C = H Fig. 3-1, 3-4
t_{PLH} t_{PHL}	Propagation Delay from A or B to Y		12 13	ns	A or B = H, C = H Fig. 3-1, 3-5
t_{PLH} t_{PHL}	Propagation Delay from C to Y		12 12	ns	A = B, Fig. 3-1, 3-5
t_{PLH} t_{PHL}	Propagation Delay from C to Y		11.5 12	ns	A \neq B, Fig. 3-1, 3-4

*DC limits apply over operating temperature range; AC limits apply at $T_A = +25^\circ \text{C}$ and $V_{CC} = +5.0 \text{ V}$.