

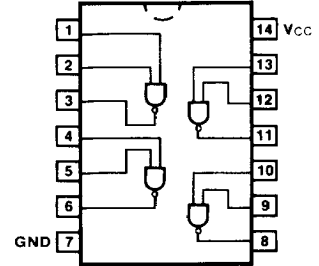
**CONNECTION DIAGRAM  
PINOUT A**

✓ **54/74132** 011667  
 ✓ **54S/74S132** 011669  
 ✓ **54LS/74LS132** 011668

**QUAD 2-INPUT  
SCHMITT TRIGGER NAND GATE**

**ORDERING CODE:** See Section 9

PKGS	PIN OUT	COMMERCIAL GRADE	MILITARY GRADE	PKG TYPE
		V <sub>CC</sub> = +5.0 V ±5%, T <sub>A</sub> = 0°C to +70°C	V <sub>CC</sub> = +5.0 V ±10%, T <sub>A</sub> = -55°C to +125°C	
Plastic DIP (P)	A	74132PC, 74S132PC 74LS132PC		9A
Ceramic DIP (D)	A	74132DC, 74S132DC 74LS132DC	54132DM, 54S132DM 54LS132DM	6A
Flatpak (F)	A	74132FC, 74S132FC 74LS132FC	54132FM, 54S132FM 54LS132FM	3I



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

PINS	54/74 (U.L.) HIGH/LOW	54/74S (U.L.) HIGH/LOW	54/74LS (U.L.) HIGH/LOW
Inputs	1.0/0.75	1.25/1.25	0.5/0.25
Outputs	20/10	25/12.5	10/5.0 (2.5)

**DC AND AC CHARACTERISTICS:** See Section 3\*

SYMBOL	PARAMETER	54/74	54/74S	54/74LS	UNITS	CONDITIONS
		Min Max	Min Max	Min Max		
V <sub>T+</sub>	Positive-going Threshold Voltage	1.5 2.0	1.6 1.9	1.4 1.9	V	V <sub>CC</sub> = +5.0 V
V <sub>T-</sub>	Negative-going Threshold Voltage	0.6 1.1	1.1 1.4	0.5 1.0	V	V <sub>CC</sub> = +5.0 V
V <sub>T+</sub> - V <sub>T-</sub>	Hysteresis Voltage	0.4	0.2	0.4	V	V <sub>CC</sub> = +5.0 V
I <sub>T+</sub>	Input Current at Positive-going Threshold	-0.43**	-0.9 **	-0.14**	mA	V <sub>CC</sub> = +5.0 V, V <sub>IN</sub> = V <sub>T+</sub>
I <sub>T-</sub>	Input Current at Negative-going Threshold	-0.56**	-1.1 **	-0.18**	mA	V <sub>CC</sub> = +5.0 V, V <sub>IN</sub> = V <sub>T-</sub>
I <sub>OS</sub>	Output Short Circuit Current	-18 -55			mA	V <sub>CC</sub> = Max, V <sub>OUT</sub> = 0 V
I <sub>CCH</sub> I <sub>CCL</sub>	Power Supply Current	24 40	44 68	11 14	mA	V <sub>IN</sub> = Gnd V <sub>IN</sub> = Open   V <sub>CC</sub> = Max
t <sub>PLH</sub> t <sub>PHL</sub>	Propagation Delay	22 22	10.5 13	20 20	ns	Figs. 3-1, 3-4

\*DC limits apply over operating temperature range; AC limits apply at T<sub>A</sub> = +25°C and V<sub>CC</sub> = +5.0 V. \*\*Typical Value