54H/74H52

PIN CONFIGURATIONS

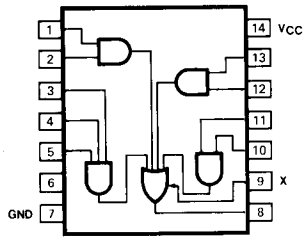

Figure A

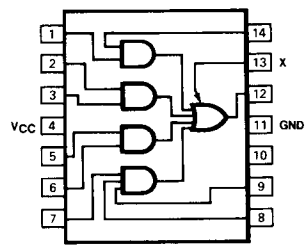

Figure B

ORDERING CODE (See Section 9 for further Package and Ordering Information)

PACKAGES	PIN CONF.	COMMERCIAL RANGES V_{CC}=5V ± 5%; T_A=0°C to +70°C	MILITARY RANGES V_{CC}=5V ± 10%; T_A=−55°C to +125°C
Plastic DIP	Fig. A	N74H52N	
Ceramic DIP	Fig. A	N74H52F	S54H52F
Flatpak	Fig. B		S54H52W

INPUT AND OUTPUT LOADING AND FAN-OUT TABLE[a]

PINS		54/74	54H/74H	54S/74S	54LS/74LS
Inputs	I_{IH} (μA) I_{IL} (mA)		50 −2.0		
Outputs	I_{OH} (μA) I_{OL} (mA)		−500 20		

DC CHARACTERISTICS OVER OPERATING TEMPERATURE RANGE[b]

PARAMETER		TEST CONDITIONS		54/74		54H/74H		54S/74S		54LS/74LS		UNIT
				Min	Max	Min	Max	Min	Max	Min	Max	
I_X	Expander Current	V_{CC} = Min, V_X = 1.0V, I_{OH} = −500μA	T_A = −55°C			−2.7	−4.5					mA
			T_A = 0°C			−2.9	−5.35					mA
V_{OH}	Output HIGH voltage	V_{CC} = Min, V_X = 1.0V T_A = Min, I_{OH} = −500μA				2.4						V
V_{OL}	Output LOW voltage	V_{CC} = Min, I_X = −300μA T_A = Max, I_{OL} = 20mA					0.4					V
I_{CCH}	Supply current	V_{CC} = Max, V_{IN} ≥ 4.5V					31					mA
I_{CCL}	Supply current	V_{CC} = Max, V_{IN} = 0V					24					mA

AC CHARACTERISTICS: T_A = 25°C (See Section 4 for Waveforms and Conditions)

PARAMETER		TEST CONDITIONS	54/74		54H/74H		54S/74S		54LS/74LS		UNIT
					C_L = 25pF R_L = 280Ω						
			Min	Max	Min	Max	Min	Max	Min	Max	
t_{PLH} t_{PHL}	Propagation delay	Waveform 2				15 15					

NOTES

a. The slashed numbers indicate different parametric values for Military/Commercial temperature ranges respectively.

b. For family dc characteristics see inside front cover for 54/74 and 54H/74H, and see inside back cover for 54S/74S and 54LS/74LS specification.