

54H/74H22
54S/74S22
54LS/74LS22

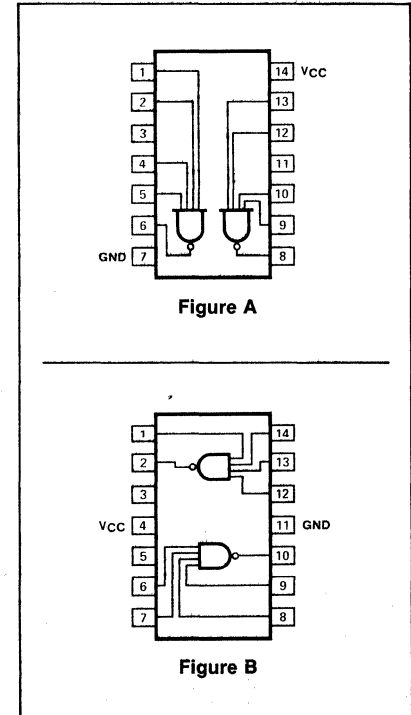
ORDERING CODE (See Section 9 for further Package and Ordering Information.)

PACKAGES	PIN CONF.	COMMERCIAL RANGES $V_{CC} = 5V \pm 5\%$; $T_A = 0^\circ C$ to $+70^\circ C$	MILITARY RANGES $V_{CC} = 5V \pm 10\%$; $T_A = -55^\circ C$ to $+125^\circ C$
Plastic DIP	Fig. A Fig. A	N74H22N N74S22N • N74LS22N	
Ceramic DIP	Fig. A Fig. A	N74H22F N74S22F • N74LS22F	S54H22F S54S22F • S54LS22F
Flatpak	Fig. B Fig. A		S54H22W S54S22W • S54LS22W

INPUT AND OUTPUT LOADING AND FAN-OUT TABLE (See Note a)

PINS		54/74	54H/74H	54S/74S	54LS/74LS
Inputs	I_{IH} (μA)		50	50	20
	I_{IL} (mA)		-2.0	-2.0	-0.36
Outputs	I_{OH} (μA)		+250	+250	+100
	I_{OL} (mA)		20	20	4/8 ^(a)

PIN CONFIGURATIONS



DC CHARACTERISTICS OVER OPERATING TEMPERATURE RANGE (See Note b)

PARAMETER	TEST CONDITIONS	54/74		54H/74H		54S/74S		54LS/74LS		UNIT
		Min	Max	Min	Max	Min	Max	Min	Max	
I_{CCH}	Supply current	$V_{CC} = \text{Max}, V_{IN} = 0V$			5.0		6.6		0.8	mA
I_{CCL}	Supply current	$V_{CC} = \text{Max}, V_{IN} \geq 4.5V$			20		18		2.2	mA

AC CHARACTERISTICS $T_A = 25^\circ C$ (See Section 4 for Waveforms and Conditions.)

PARAMETER	TEST CONDITIONS	54/74		54H/74H		54S/74S		54LS/74LS		UNIT
				$C_L = 25 \text{ pF}$ $R_L = 280 \Omega$		$C_L = 15 \text{ pF}$ $R_L = 280 \Omega$		$C_L = 15 \text{ pF}$ $R_L = 2k \Omega$		
		Min	Max	Min	Max	Min	Max	Min	Max	
t_{PLH}	Propagation delay	Waveform 1			15		7.5		32	ns
t_{PHL}	Propagation delay	Waveform 1			12		7.0		28	ns

NOTE

- 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.