54/7400
54H/74H00
54S/74S00
54LS/74LS00

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 Fig. A	N7400N • N74H00N N74S00N • N74LS00N	
Ceramic DIP	Fig. A Fig. A	N7400F • N74H00F N74S00F • N74LS00F	S5400F • S54H00F S54S00F • S54LS00F
Flatpak	Fig. B Fig. A		S5400W • S54H00W S54S00W • S54LS00W

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

PINS		54/74	54H/74H	54S/74S	54LS/74LS
Inputs	I_{IH} (μA) I_{IL} (mA)	40 -1.6	50 -2.0	50 -2.0	20 -0.36
Outputs	I_{OH} (μA) I_{OL} (mA)	-400 16	-500 20	-1000 20	-400 4/8 [a]

PIN CONFIGURATIONS

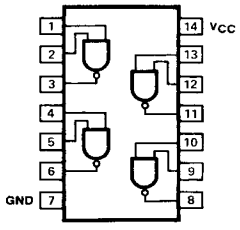

Figure A

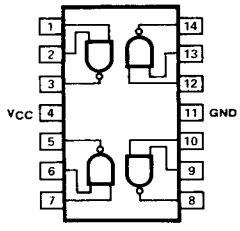

Figure B

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} = Max, V_{IN} = 0V		8.0		16.8		16		1.6	mA
I_{CCL}	Supply current	V_{CC} = Max, V_{IN} ≥ 4.5V		12		40		36		4.4	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 = 15 pF R_L = 400Ω		C_L = 25 pF R_L = 280Ω		C_L = 15 pF R_L = 280Ω		C_L = 15 pF R_L = 2kΩ		
			Min	Max	Min	Max	Min	Max	Min	Max	
t_{PLH}	Propagation delay	Waveform 1		22		10		4.5		15	ns
t_{PHL}	Propagation delay	Waveform 1		15		10		5.0		15	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.