

54/7408
54H/74H08
54S/74S08
54LS/74LS08

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	N7408N • N74H08N N74S08N • N74LS08N	
Ceramic DIP	Fig. A Fig. A	N7408F • N74H08F N74S08F • N74LS08F	S5408F • S54H08F S54S08F • S54LS08F
Flatpak	Fig. B Fig. A		S54H08W S5408W/S54S08W/S54LS08W

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

PINS		54/74	54H/74H	54S/74S	54LS/74LS
Inputs	I_{IH} (μA)	40	50	50	20
	I_{IL} (mA)	-1.6	-2.0	-2.0	-0.36
Outputs	I_{OH} (μA)	-800	-500	-1000	-400
	I_{OL} (mA)	16	20	20	4/8 ^(a)

PIN CONFIGURATIONS

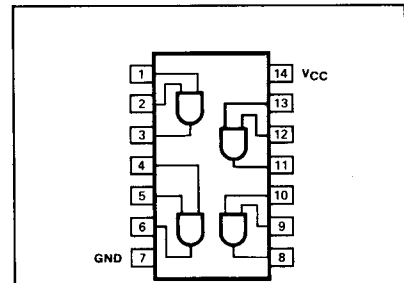


Figure A

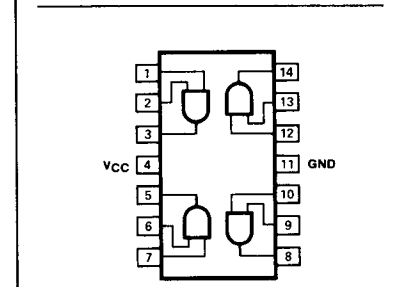


Figure B

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 $V_{CC} = \text{Max}, V_{IN} \geq 4.5V$		21		40		32		4.8	mA
I_{CCL}	Supply current $V_{CC} = \text{Max}, V_{IN} = 0V$		33		64		57		8.8	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
		$C_L = 15 pF$ $R_L = 400 \Omega$		$C_L = 25 pF$ $R_L = 280 \Omega$		$C_L = 15 pF$ $R_L = 280 \Omega$		$C_L = 15 pF$ $R_L = 2k \Omega$		
		Min	Max	Min	Max	Min	Max	Min	Max	
t_{PLH}	Propagation delay Waveform 2		27		12		7.0		15	ns
t_{PHL}	Propagation delay Waveform 2		19		12		7.5		20	ns

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.