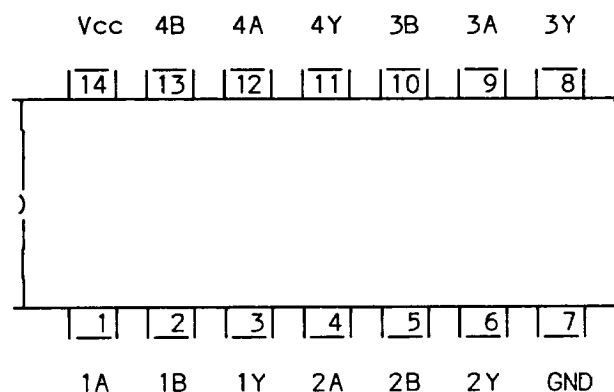


ADVANCED LOW-POWER  
SCHOTTKY TTL

TYPES SN54ALS903 and SN74ALS903  
QUAD 2-INPUT NAND BUFFERS with OPEN COLLECTOR OUTPUTS

- \* QUAD 2-INPUT NAND BUFFERS w/O.C. OUTPUTS
- \* ADVANCED OXIDE-ISOLATED, ION-IMPLANTED SCHOTTKY TTL PROCESS
- \* FUNCTIONALLY and PIN-for-PIN COMPATIBLE with TTL COUNTERPART
- \* IMPROVED AC PERFORMANCE over LS COUNTERPART
- \* HALF the POWER of LS COUNTERPART
- \* IMPROVED INPUT THRESHOLD VOLTAGE
- \* IMPROVED LINE RECEIVING CHARACTERISTICS

## ELECTRICAL PINOUT

positive logic:  $Y = \overline{AB}$ 

This advanced low-power Schottky device has been fabricated by an advanced oxide-isolated, ion-implanted Schottky TTL process developed by TI. The major benefit of this process is the improvement of the speed-power product by the reduction of parasitic and side-wall capacitance and enhanced  $f_T$ . The ALS family features the same output drive characteristics as the LS family.

switching characteristics  $V_{cc}=5V$ ,  $T_a=25^\circ C$ ,  $C_I=50pF$ ,  $R_I=667ohms$

PARAMETER		SN54ALS903			SN74ALS903			UNIT
		min	typ	max	min	typ	max	
$t_{plh}$	Propagation delay time, low-to-high-level output		14.5			14.5		ns
$t_{phl}$	Propagation delay time, high-to-low-level output		10.0			10.0		ns

supply current over recommended operating free-air temperature range

PARAMETER		TEST CONDITIONS		SN54ALS903		SN74ALS903		UNIT
				typ	max	typ	max	
$I_{cch}$	Supply current, outputs high	$V_{cc}=MAX, V_i=0V$		.86	2.1	.86	2.1	mA
$I_{ccl}$	Supply current, outputs low	$V_{cc}=MAX, V_i=4.5V$		4.0	6.8	4.0	6.8	mA

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