PRELIMINARY DATA SHEET

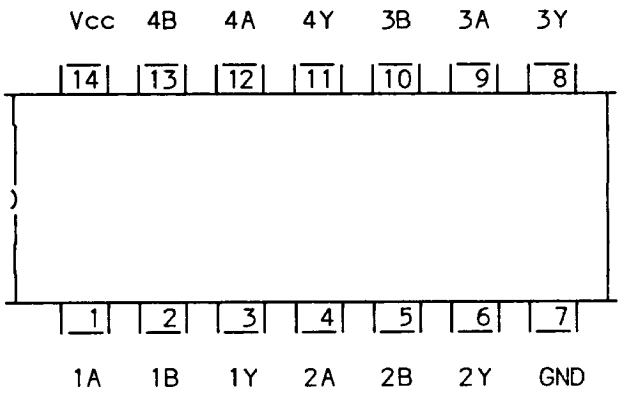
ADVANCED LOW-POWER SCHOTTKY TTL

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 Vcc=5V,Ta=25°C,Cl=50pF,Rl=667ohms

| | PARAMETER | SN54ALS903 min | typ | max | SN74ALS903 min | typ | max | UNIT |
|---|---|---|---|---|---|---|---|---|
| tplh | Propagation delay time,low-to-high-level output | | 14.5 | | | 14.5 | | ns |
| tphl | 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 typ | SN54ALS903 max | SN74ALS903 typ | SN74ALS903 max | UNIT |
|---|---|---|---|---|---|---|---|
| Icch | Supply current, outputs high | Vcc=MAX,Vi=0V | .86 | 2.1 | .86 | 2.1 | mA |
| Iccl | Supply current, outputs low | Vcc=MAX,Vi=4.5V | 4.0 | 6.8 | 4.0 | 6.8 | mA |