PRELIMINARY DATA SHEET

ADVANCED LOW-POWER SCHOTTKY TTL

TYPES SN54ALS902 and SN74ALS902
QUAD 2-INPUT NOR BUFFERS

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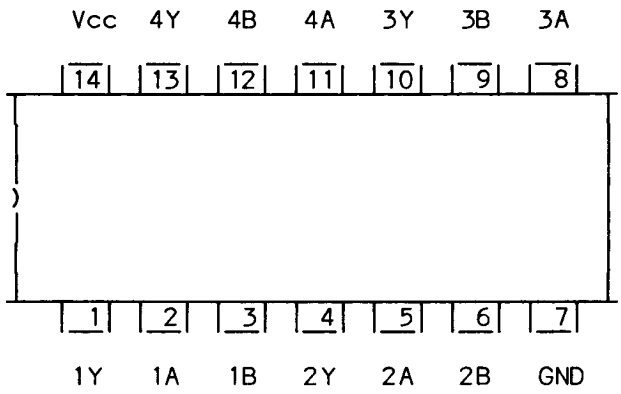
* ADVANCED OXIDE-ISOLATED, ION-IMPLANTED SCHOTTKY TTL PROCESS
* FUNCTIONALLY and PIN-for-PIN COMPATIBLE with TTL COUNTERPART
* IMPROVED AC PERFORMANCE over LS COUNTERPART
* HALF the POWER of LS COUNTERPART
* IMPROVED INPUT THRESHOLD VOLTAGE
* IMPROVED LINE RECEIVING CHARACTERISTICS

ELECTRICAL PINOUT

positive logic: $Y=\overline{A+B}$



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		SN54ALS902 min typ max	SN74ALS902 min typ max	UNIT
tplh	Propagation delay time, low-to-high-level output	4.8	4.8	ns
tphl	Propagation delay time, high-to-low-level output	4.3	4.3	ns

supply current over recommended operating free-air temperature range

PARAMETER		TEST CONDITIONS	SN54ALS902 typ	SN54ALS902 max	SN74ALS902 typ	SN74ALS902 max	UNIT
Icch	Supply current, outputs high	Vcc=MAX, Vi=0V	1.7	3.1	1.7	3.1	mA
Iccl	Supply current, outputs low	Vcc=MAX, Vi=4.5V	4.8	8.8	4.8	8.8	mA

PARAMETER				SN54ALS902 min	SN54ALS902 max	SN74ALS902 min	SN74ALS902 max	UNIT
Io †	Output drive current	Vcc=MAX, Vi=0V	Vo=2.25V Vo=2.125V	-15	-70	-15	-70	mA

† The output voltage conditions have been chosen to produce a current that closely approximates one-half of the true short-circuit output current, Ios.