Attachment B-15

PRELIMINARY DATA SHEET ✓

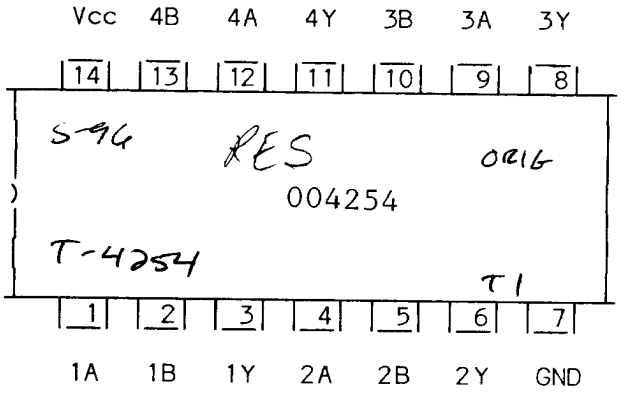
ADVANCED LOW-POWER
SCHOTTKY TTL

TYPES SN54ALS900 and SN74ALS900
QUAD 2-INPUT NAND BUFFERS

* QUAD 2-INPUT NAND BUFFERS
* 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	SN54ALS900 min typ max	SN74ALS900 min typ max	UNIT
tplh	Propagation delay time, low-to-high-level output	3.5	3.5	ns
tphl	Propagation delay time, high-to-low-level output	3.5	3.5	ns

supply current over recommended operating free-air temperature range

	PARAMETER	TEST CONDITIONS	SN54ALS900 typ	SN54ALS900 max	SN74ALS900 typ	SN74ALS900 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

	PARAMETER	TEST CONDITIONS		SN54ALS900 min	SN54ALS900 max	SN74ALS900 min	SN74ALS900 max	UNIT
Io †	Output drive current	Vcc=MAX, Vi=0V	Vo=2.25V	-15	-70			mA
			Vo=2.125V			-15	-70	

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

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