

9386

4-BIT QUAD EXCLUSIVE-NOR

(With Open-Collector Outputs)

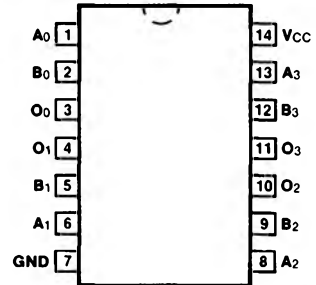
DESCRIPTION — The '86 consists of four independent Exclusive-NOR gates with open-collector outputs. Single 1-bit comparisons may be made with each gate, or multiple bit comparisons may be made by connecting the outputs of the four gates together. Typical power dissipation is 170 mW. The 9386 is equivalent to the 8242.

TRUTH TABLE

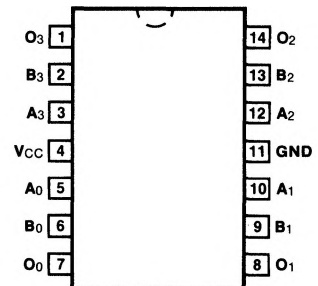
INPUTS		OUTPUT
A _n	B _n	O _n
L	L	H
H	L	L
L	H	L
H	H	H

H = HIGH Voltage Level
L = LOW Voltage Level

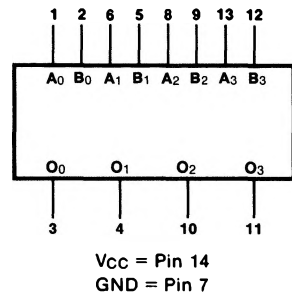
CONNECTION DIAGRAMS
PINOUT A



PINOUT B



LOGIC SYMBOL
(DIP only)



ORDERING CODE: See Section 9

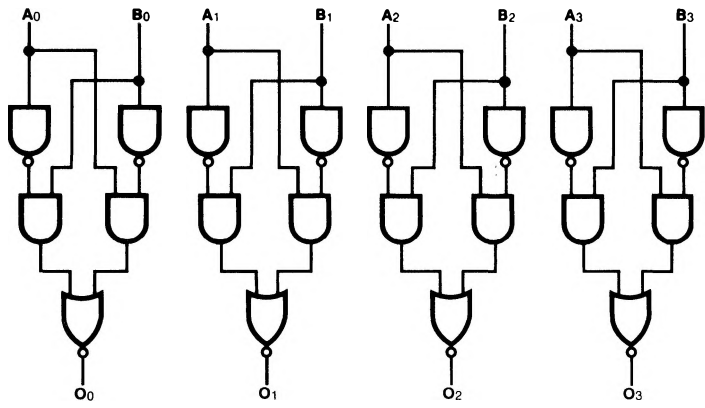
PKGS	PIN OUT	COMMERCIAL GRADE	MILITARY GRADE	PKG TYPE
		V _{CC} = +5.0 V ±5%, T _A = 0°C to +70°C	V _{CC} = +5.0 V ±10%, T _A = -55°C to +125°C	
Plastic DIP (P)	A	9386PC		9A
Ceramic DIP (D)	A	9386DC	9386DM	6A
Flatpak (F)	B	9386FC	9386FM	3I

INPUT LOADING/FAN-OUT: See Section 3 for U.L. definitions

PIN NAMES	DESCRIPTION	93XX (U.L.) HIGH/LOW
A ₀ , B ₀	Gate 0 Inputs	2.0/2.0
A ₁ , B ₁	Gate 1 Inputs	2.0/2.0
A ₂ , B ₂	Gate 2 Inputs	2.0/2.0
A ₃ , B ₃	Gate 3 Inputs	2.0/2.0
O ₀ — O ₃	Gate Outputs	OC*/15

*OC — Open Collector

LOGIC DIAGRAM



DC CHARACTERISTICS OVER OPERATING TEMPERATURE RANGE (unless otherwise specified)

SYMBOL	PARAMETER	93XX		UNITS	CONDITIONS
		Min	Max		
BVi	Input Latch Voltage	A Input 5.5	B Input 5.5	V	$I_{IN}(A) = 10\text{ mA}, V_{IN}(B) = 0\text{ V}$ $I_{IN}(B) = 10\text{ mA}, V_{IN}(A) = 0\text{ V}$
IOH	Output HIGH Current		150	μA	$V_{CC} = \text{Min}, V_{IN} = V_{IH}$ $V_{OUT} = 4.5\text{ V}$
ICC	Power Supply Current		47.5	mA	$V_{CC} = 5.25\text{ V}$ $V_{IN}(A), V_{IN}(B) = 0.4\text{ V}$

AC CHARACTERISTICS: $V_{CC} = +5.0\text{ V}, T_A = +25^\circ\text{ C}$ (See Section 3 for waveforms and load configurations)

SYMBOL	PARAMETER	93XX		UNITS	CONDITIONS
		$C_L = 30\text{ pF}$ $R_L = 530\ \Omega$			
		Min	Max		
tPLH tPHL	Propagation Delay A_n, B_n to O_0-O_3		25 25	ns	Figs. 3-2, 3-20