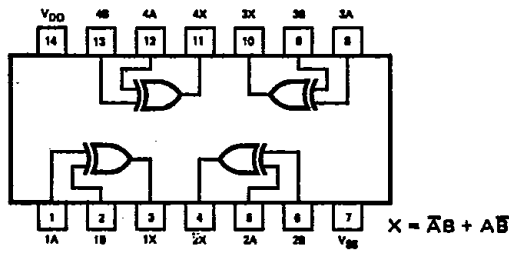


GD4070B

QUAD EXCLUSIVE-OR-GATE

DESCRIPTION — The 4070B CMOS logic element provides the Exclusive-OR function. The outputs are fully buffered for best performance. The 4070B is a direct replacement for the 74C86/54C86.



**LOGIC AND CONNECTION DIAGRAM
DIP (TOP VIEW)**

NOTE:
The SO Package has the same pinout (Connection Diagram) as the Dual In-line Package.

DC CHARACTERISTICS: V_{DD} as shown, $V_{SS} = 0$ V (See Note 1)

SYMBOL	PARAMETER	LIMITS									UNITS	TEMP	TEST CONDITIONS	
		$V_{DD} = 5$ V			$V_{DD} = 10$ V			$V_{DD} = 15$ V						
		MIN	TYP	MAX	MIN	TYP	MAX	MIN	TYP	MAX				
I_{DD}	Quiescent Power Supply Current	XC			1			2			4	μ A	MIN, 25°C	All inputs at 0 V or V_{DD}
					7.5			15			30		MAX	
		XM			0.25			0.5			1	μ A	MIN, 25°C	
					7.5			15			30		MAX	

AC CHARACTERISTICS: V_{DD} as shown, $V_{SS} = 0$ V, $T_A = 25^\circ$ C (See Note 2)

SYMBOL	PARAMETER	LIMITS									UNITS	TEST CONDITIONS
		$V_{DD} = 5$ V			$V_{DD} = 10$ V			$V_{DD} = 15$ V				
		MIN	TYP	MAX	MIN	TYP	MAX	MIN	TYP	MAX		
t_{PLH}	Propagation Delay, A or B to X		85	170		45	90		27	72	ns	$C_L = 50$ pF, $R_L = 200$ k Ω
t_{PHL}			85	170		45	90		27	72	ns	
t_{TLH}	Output Transition Time		50	100		23	50		17	35	ns	Input Transition Times < 20 ns
t_{THL}			50	100		23	50		17	35	ns	

NOTES:

- Additional DC Characteristics are listed in this section under 4000B Series CMOS Family Characteristics.
- Propagation Delays and Output Transition Times are graphically described in this section under 4000B Series CMOS Family Characteristics.

TYPICAL ELECTRICAL CHARACTERISTICS

