

CMOS AND GATES

4081B - Quad 2-Input AND
4082B - Dual 4-Input AND
4073B - Triple 3-Input AND

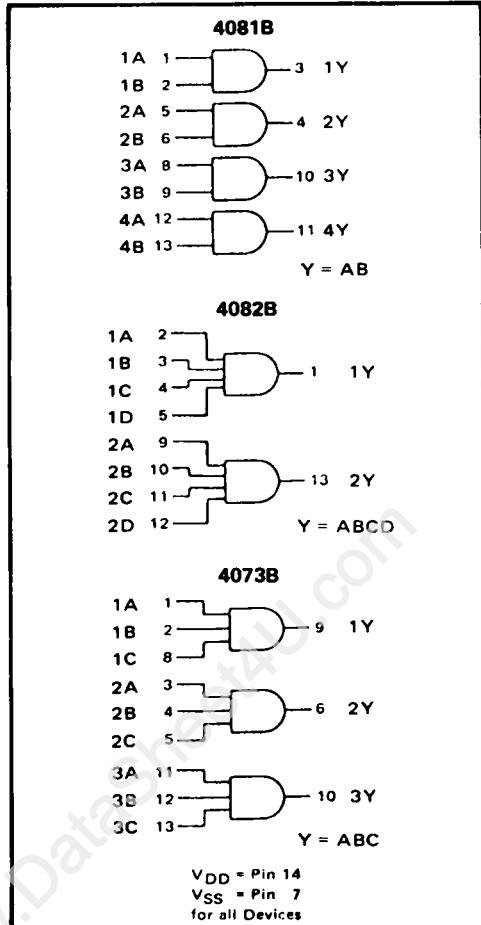
FEATURES

- ◆ Buffered Outputs
- ◆ Diode Protection on all Inputs
- ◆ Fully "B"-Series Compatible

TRUTH TABLE

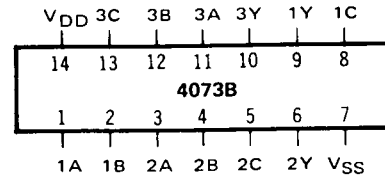
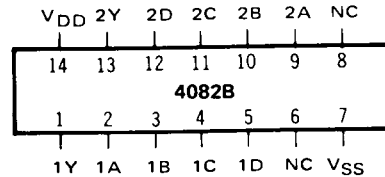
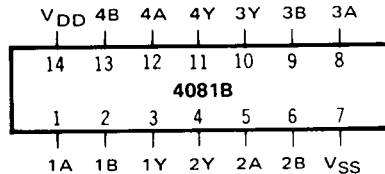
Inputs	Output
1 1 ... 1	1
All other combinations	0

FUNCTION DIAGRAMS



CONNECTION DIAGRAMS

(all packages)



RECOMMENDED OPERATING CONDITIONS

For maximum reliability:

DC Supply Voltage	$V_{DD} - V_{SS}$	3 to 15	Vdc
Operating Temperature	T_A	-55 to +125	°C
C, D, F, H Device		-40 to +85	°C
E Device			

ELECTRICAL CHARACTERISTICS

STATIC CHARACTERISTICS

PARAMETER	V _{DD} (Vdc)	CONDITIONS	T _{LOW} ²		+25°C			T _{HIGH} ²		Units
			Min.	Max.	Min.	Typ.	Max.	Min.	Max.	
QUIESCENT DEVICE CURRENT	I _{DD}	V _{IN} = V _{CS} or V _{DD} All valid input combinations	—	0.05	—	0.0005	0.05	—	1.5	μA _{dc}
			—	0.10	—	0.001	0.10	—	3.0	
			—	0.20	—	0.002	0.20	—	6.0	

NOTES: ¹ Remaining Static Electrical Characteristics are listed under "4000B Series Family Specifications".

² T_{LOW} = -55°C for C, D, F, H device.

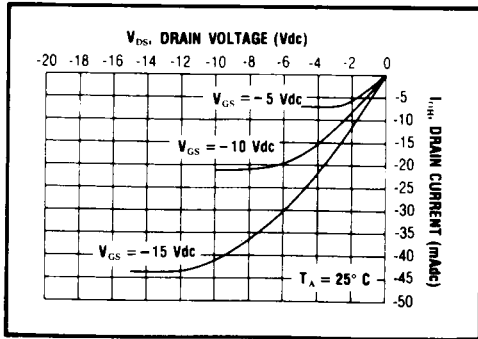
= -40°C for E device.

T_{HIGH} = +125°C for C, D, F, H device.

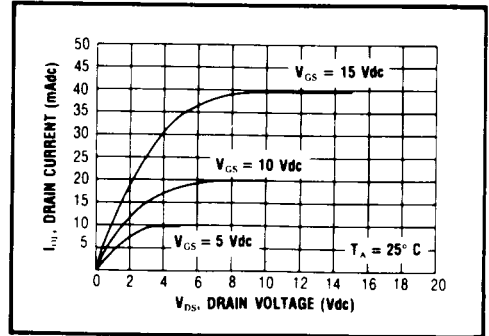
= +85°C for E device.

DYNAMIC CHARACTERISTICS (C_L = 50pF, T_A = 25°C)

PARAMETER	V _{DD} (Vdc)	Min.	Typ.	Max.	Units
PROPAGATION DELAY TIME	t _{PLH} , t _{PHL}	5	120	240	ns
		10	60	120	
		15	45	90	
OUTPUT TRANSITION TIME	t _{TLH} , t _{THL}	5	100	200	ns
		10	50	100	
		15	40	80	



Typical P-Channel Source Current Characteristics
LOGIC DIAGRAMS



Typical N-Channel Sink Current Characteristics
SCHEMATIC DIAGRAM - 4082B (1 of 2 gates)

