

## CMOS AND GATES

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

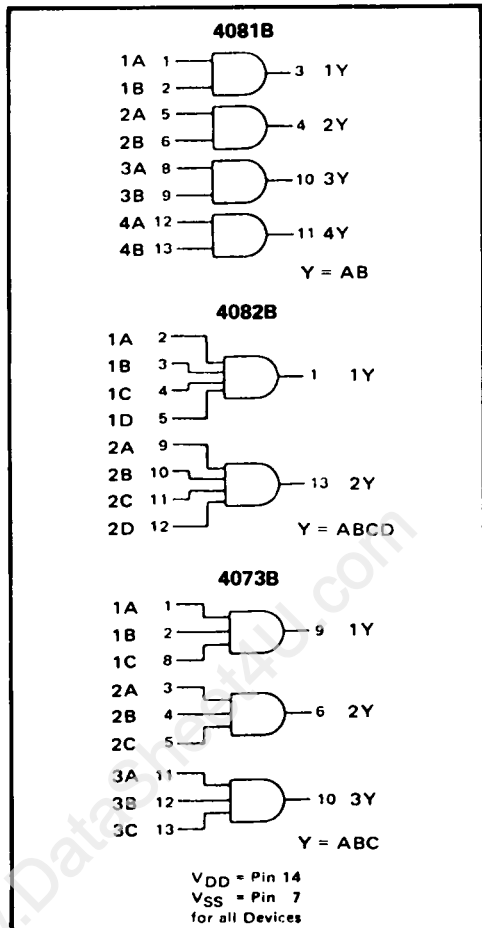
### FEATURES

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

### TRUTH TABLE

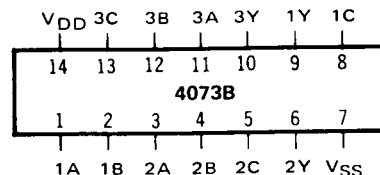
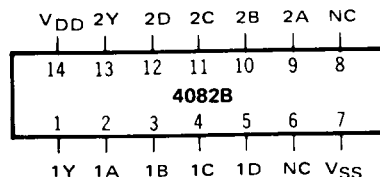
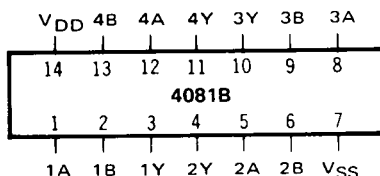
Inputs	Output
1 1 ... 1	1
All other combinations	0

### 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

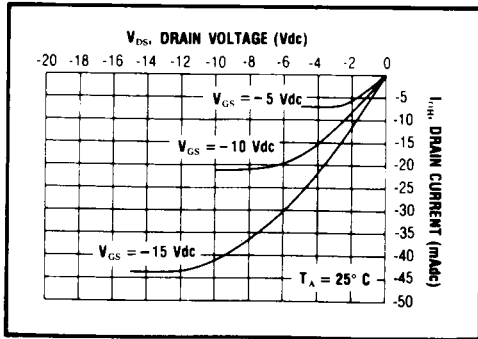
### STATIC CHARACTERISTICS

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

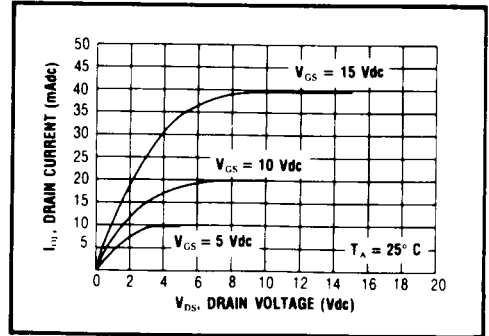
NOTES: <sup>1</sup> Remaining Static Electrical Characteristics are listed under "4000B Series Family Specifications".  
<sup>2</sup> T<sub>LOW</sub> = -55°C for C, D, F, H device.  
 = -40°C for E device.  
 T<sub>HIGH</sub> = +125°C for C, D, F, H device.  
 = + 85°C for E device.

### DYNAMIC CHARACTERISTICS (C<sub>L</sub> = 50pF, T<sub>A</sub> = 25°C)

PARAMETER	V <sub>DD</sub> (Vdc)	Min.	Typ.	Max.	Units
PROPAGATION DELAY TIME	t <sub>PLH</sub> , t <sub>PHL</sub>	5	—	120	240
		10	—	60	120
		15	—	45	90
OUTPUT TRANSITION TIME	t <sub>TLH</sub> , t <sub>THL</sub>	5	—	100	200
		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)

