

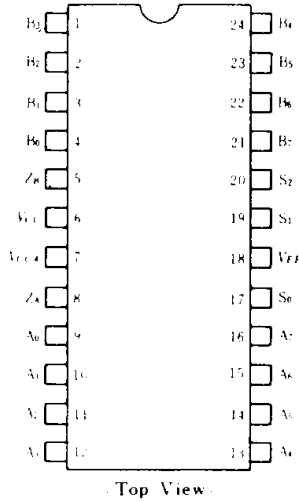
HD100163

Dual 8-input Multiplexers

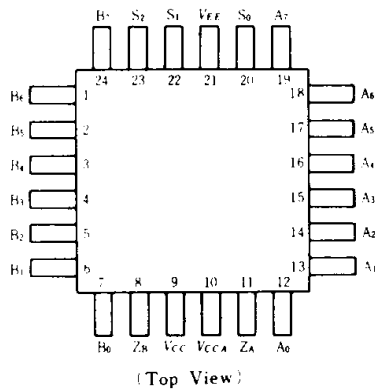
The HD100163 is a dual 8-input Multiplexer. The Data Select(Sn) inputs determine which bit (An and Bn) will be presented at the Outputs (ZA and ZB respectively). The same bit (0-7) will be selected for both the ZA and ZB output.

■ PIN ARRANGEMENT

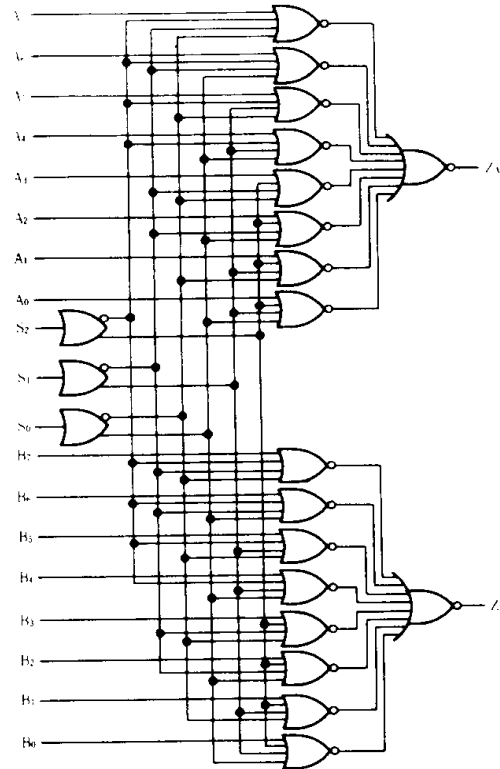
● HD100163



● HD100163F



■ LOGIC DIAGRAM



■ TRUTH TABLE

Address			Input								Output
S ₂	S ₁	S ₀	A ₇ B ₇	A ₆ B ₆	A ₅ B ₅	A ₄ B ₄	A ₃ B ₃	A ₂ B ₂	A ₁ B ₁	A ₀ B ₀	
L	L	L	x	x	x	x	x	x	x	L	L
L	L	L	x	x	x	x	x	x	L	H	L
L	L	H	x	x	x	x	x	x	L	H	x
L	L	H	x	x	x	x	x	L	H	x	L
L	H	L	x	x	x	x	x	L	H	x	L
L	H	L	x	x	x	L	H	x	x	x	L
L	H	H	x	x	x	L	H	x	x	x	L
L	H	H	x	x	x	L	H	x	x	x	L
H	L	L	x	x	x	L	H	x	x	x	L
H	L	L	x	x	L	H	x	x	x	x	L
H	L	H	x	x	L	H	x	x	x	x	L
H	L	H	x	L	H	x	x	x	x	x	L
H	H	L	x	L	H	x	x	x	x	x	L
H	H	L	x	L	H	x	x	x	x	x	L
H	H	H	L	x	x	x	x	x	x	x	L
H	H	H	L	x	x	x	x	x	x	x	L

■ **DC CHARACTERISTICS** ($V_{EE} = -4.2$ to $-4.8V$, $V_{CC} = V_{CCA} = GND$, $T_a = 0$ to $+85^{\circ}C$)

Item	Symbol	Test Condition				Unit
			min	typ	max	
Supply Current	I_{EE}	All input open	76	109	153	mA
Input Current	I_{IH}	$V_{IN} = V_{IH(max)}$	S _n input		265	μA
			A _n , B _n input		340	μA

Note) As for other item, refer to the "Common DC Characteristics".

■ **AC CHARACTERISTICS** ($V_{EE} = -2.2$ to $-2.8V$, $V_{CC} = V_{CCA} = 2.0V$)

● **HD100163**

Item	Symbol	Test Condition	0℃		25℃			85℃		Unit		
			min	max	min	typ	max	min	max			
Propagation Delay Time	t_{PLH}, t_{PHL}	See test circuit and waveform	A _n , B _n input to output		0.60	1.30	0.60	0.95	1.40	0.60	1.40	ns
			S _n input to output		1.25	2.45	1.30	1.75	2.50	1.30	2.50	
Transition Time	t_{FLH}, t_{FHL}		0.55	1.70	0.55	1.20	1.70	0.55	1.70	ns		

● **HD100163F**

Item	Symbol	Test Condition	0℃		25℃			85℃		Unit		
			min	max	min	typ	max	min	max			
Propagation Delay Time	t_{PLH}, t_{PHL}	See test circuit and waveform	A _n , B _n input to output		0.70	1.40	0.80	0.95	1.50	0.80	1.50	ns
			S _n input to output		1.30	2.40	1.40	1.75	2.50	1.40	2.50	
Transition Time	t_{FLH}, t_{FHL}		0.55	1.60	0.55	1.10	1.60	0.55	1.60	ns		

Note) The circuits in a test socket or mounted on a printed circuit board and transverse air flow greater than 2.5m/s (500 linear fpm) is maintained.