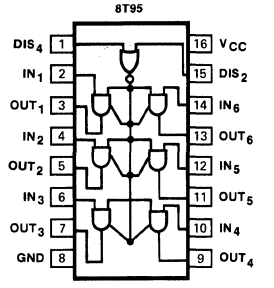
8T95-N,F • 8T96-N,F • 8T97-N,F • 8T98-N,F

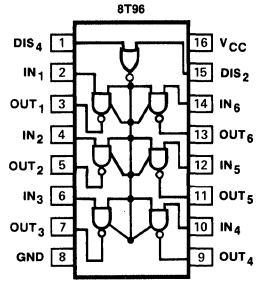
DESCRIPTION

Each of the 3-State Bus Interface Elements described herein has low current PNP inputs and is designed with Schottky TTL technology for ultra high speed. The devices are used to convert TTL/DTL or MOS/CMOS to 3-state TTL Bus levels. For maximum systems flexibility the 8T95 and 8T97 do so without logic inversion, whereas, the 8T96 and 8T98 provide the logical complement of the input. The 8T95 and 8T96 feature a common control line for all six devices, whereas, the 8T97 and 8T98 have control lines for four devices from one input and two from another input.

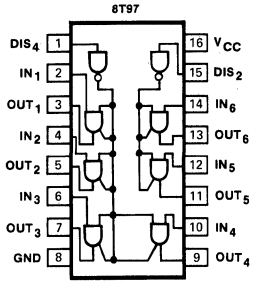
PIN CONFIGURATIONS

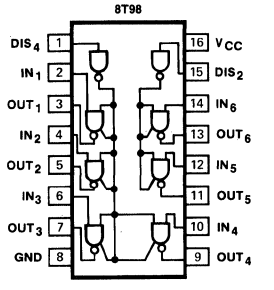
N,F PACKAGE





N,F PACKAGE





TRUTH TABLE

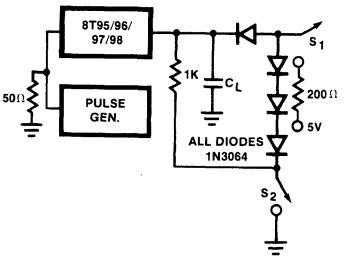
DEVICE	DISABLE DIS_1	DISABLE DIS_4	INPUT DIS_2	INPUT	OUTPUT
8T95	0	—	0	0	0
	0	—	0	1	1
	0	—		x	H-z
	1	—	0	x	H-z
	1	—	1	x	H-z
8T96	0	—	0	0	1
	0	—	0	1	0
	0	—	1	x	H-z
	1	—	0	x	H-z
	1	—	1	x	H-z
8T97	—	0	0	0	0
	—	0	0	1	1
	—	x	1	x	H-z*
	—	1	x	x	H-z**
8T98	—	0	0	0	1
	—	0	0	1	0
	—	x	1	x	H-z*
	—	1	x	x	H-z**

*Output 5-6 only **Output 1-4 only x = irrelevant

DC ELECTRICAL CHARACTERISTICS

PARAMETER		TEST CONDITIONS	LIMITS Min	Typ	Max	UNIT
	Input voltage					
V_{IL}	Low				0.8	V
V_{IH}	High		2.0			V
V_{IC}	Clamp	V_{CC} = MIN, I_{IN} = -12mA				
	Input				-1.5	V
	Output to ground				-1.5	V
	Output voltage	V_{CC}= MIN				
V_{OL}		I_{OL} = 48mA			0.5	V
V_{OH}		I_{OH} = 5.2mA	2.4			V
	Input current	V_{CC} = MAX, V_{IN} = 0.5V				
I_{IL}	Low	D_{IS} = 0.5V			-400	μA
		D_{IS} = 2.0V (third state)			-40	μA
I_{IH}	High	V_{IN} = 2.4V			40	μA
I_{OS}	Short circuit output current	V_{CC} = MAX, V_{IN} = 0V, V_{OUT} = 0V	-40	-80	-115	μA

AC TEST CIRCUIT



Input Characteristics
PA = 3V, f = 1MHz $t_R = t_F \leq 10$ns (10% to 90%)
C_L includes probe and jig capacitance.

AC ELECTRICAL CHARACTERISTICS $T_A = 25°C$, $V_{CC} = 5.0V$

PARAMETER		TO	FROM	TEST CONDITIONS	8T95/97 Min	Typ	Max	8T96/98 Min	Typ	Max	UNIT
	Propagation delay										
t_{ON}		Outputs	Inputs		3	9	13	3	6	10	ns
t_{OFF}		Outputs	Inputs		3	7	12	4	7	11	ns
	Disable to Outputs										
t_{POH}		High Z	Low	S_1, S_2 are closed, C_L=5pF	3	6	12	5	10	16	ns
t_{PLH}		High Z	High	S_1, S_2 are closed, C_L=5pF	3	5	10	3	6	10	ns
t_{PHO}		Low	High Z	S_1 is closed, S_2 is open; C_L = 50pF	12	14	25	11	18	24	ns
t_{PHL}		High	High Z	S_1 is open, S_2 is closed; C_L = 50pF	8	19	25	7	15	22	ns

PARAMETER MEASUREMENT INFORMATION