

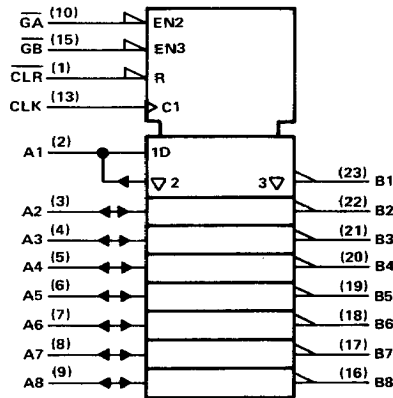
- 8-Bit Bus Drivers with Internal 8-Bit Register
- High-Current 3-State Outputs Can Drive up to 15 LSTTL Loads
- Package Options Include Both Plastic and Ceramic Chip Carriers in Addition to Plastic and Ceramic DIPs
- Dependable Texas Instruments Quality and Reliability

description

These devices consist of bus driver circuits with three-state outputs, D-type flip-flops, clear, and control circuitry arranged for transmission of data directly from the A bus or from the internal register. The A bus is bidirectional and can be used either to load the internal register or to read its contents. Input data is loaded into the register on the low-to-high transition of the clock.

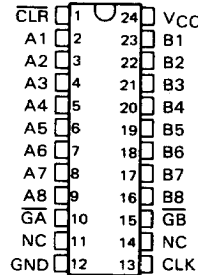
The SN54HC7340 is characterized for operation over the full military temperature range of -55°C to 125°C. The SN74HC7340 is characterized for operation from -40°C to 85°C.

logic symbol

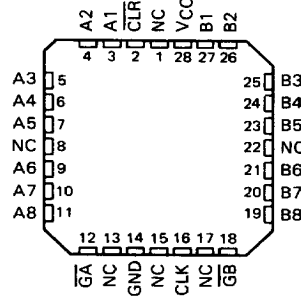


Pin numbers shown are for JT and NT packages.

SN54HC7340 . . . JT PACKAGE
SN74HC7340 . . . JT OR NT PACKAGE
(TOP VIEW)



SN54HC7340 . . . FH OR FK PACKAGE
SN74HC7340 . . . FH OR FN PACKAGE
(TOP VIEW)



NC—No internal connection

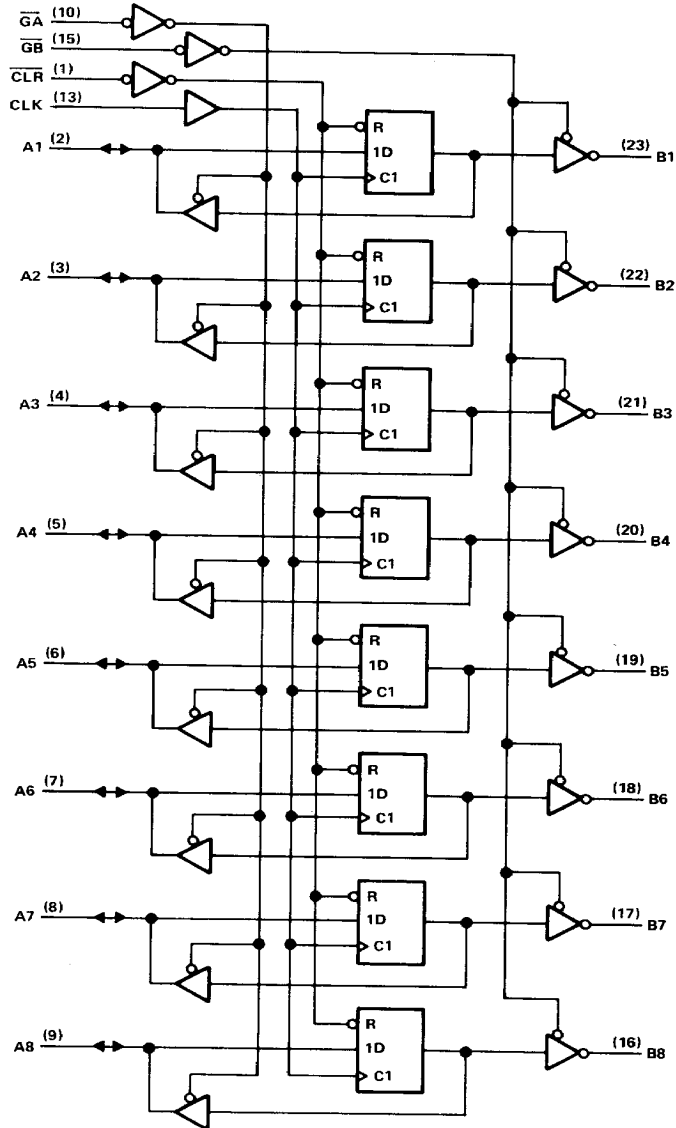
FUNCTION TABLE

INPUTS				I/O	OUTPUT	
CLR	CLK	GA	GB		A	B
L	X	L	L	L	H	
L	X	L	H	L	Z	
L	X	H	L	Z	H	
L	X	H	H	Z	Z	
H	↑	L	L	Q ₀	Q ₀	
H	↑	L	H	Q ₀	Z	
H	↑	H	L	L	H	
H	↑	H	L	H	L	
H	↑	H	H	X	Z	
H	L	L	L	Q ₀	Q ₀	
H	L	L	H	Q ₀	Z	
H	L	H	L	Z	Q ₀	
H	L	H	H	Z	Z	

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ADVANCE INFORMATION**

TYPES SN54HC7340, SN74HC7340
OCTAL BUS DRIVERS WITH BIDIRECTIONAL REGISTERS

logic diagram (positive logic)



Pin numbers shown are for JT and NT packages.

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ADVANCE INFORMATION

**TYPES SN54HC7340, SN74HC7340
OCTAL BUS DRIVERS WITH BIDIRECTIONAL REGISTERS**

maximum ratings, recommended operating conditions, and electrical characteristics

See Table III, page 2-8.

timing requirements over recommended operating free-air temperature range (unless otherwise noted)

		V _{CC}	T _A = 25 °C		SN54HC7340		SN74HC7340		UNIT
			MIN	MAX	MIN	MAX	MIN	MAX	
f _{clock}	Clock frequency	2 V	0	5	0	3.3	0	4	MHz
		4.5 V	0	25	0	17	0	20	
		6 V	0	29	0	19	0	24	
t _w	Clock high or low	2 V	100		150		125		ns
		4.5 V	20		30		25		
		6 V	17		26		21		
	Clear low	2 V	100		150		125		ns
		4.5 V	20		30		25		
		6 V	17		26		21		
t _{su}	Data	2 V	100		150		125		ns
		4.5 V	20		30		25		
		6 V	17		26		21		
	Clear inactive	2 V	100		150		125		ns
		4.5 V	20		30		25		
		6 V	17		26		21		
t _h	Hold time, data after CLK †	2 V	0		0		0		ns
		4.5 V	0		0		0		
		6 V	0		0		0		

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ADVANCE INFORMATION

TYPES SN54HC7340, SN74HC7340 OCTAL BUS DRIVERS WITH BIDIRECTIONAL REGISTERS

switching characteristics over recommended operating free-air temperature range (unless otherwise noted), $C_L = 50$ pF (see Note 1)

PARAMETER	FROM (INPUT)	TO (OUTPUT)	V _{CC}	T _A = 25°C			SN54HC7340		SN74HC7340		UNIT
				MIN	TYP	MAX	MIN	MAX	MIN	MAX	
f _{max}			2 V	5			3.3		4	MHz	
			4.5 V	25			17		20		
			6 V	29			19		24		
t _{pd}	CLK	Any	2 V		72					ns	
			4.5 V		24						
			6 V		21						
t _{PHL}	CLR	Any	2 V		69					ns	
			4.5 V		23						
			6 V		20						
t _{en}	GA or GB	A or B	2 V		48					ns	
			4.5 V		16						
			6 V		14						
t _{dis}	GA or GB	A or B	2 V		51					ns	
			4.5 V		17						
			6 V		15						
t _t		Any	2 V		28					ns	
			4.5 V		8						
			6 V		6						

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C _{pd}	Power dissipation capacitance	No load, T _A = 25°C	50 pF typ
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switching characteristics over recommended operating free-air temperature range (unless otherwise noted), $C_L = 150$ pF (see Note 1)

ADVANCE INFORMATION

PARAMETER	FROM (INPUT)	TO (OUTPUT)	V _{CC}	T _A = 25°C			SN54HC7340		SN74HC7340		UNIT
				MIN	TYP	MAX	MIN	MAX	MIN	MAX	
t _{pd}	CLK	Any	2 V		93					ns	
			4.5 V		31						
			6 V		27						
t _{PHL}	CLR	Any	2 V		87					ns	
			4.5 V		29						
			6 V		26						
t _{en}	GA or GB	A or B	2 V		60					ns	
			4.5 V		20						
			6 V		17						
t _{dis}	GA or GB	A or B	2 V		63					ns	
			4.5 V		21						
			6 V		18						
t _t		Any	2 V		60					ns	
			4.5 V		17						
			6 V		14						

NOTE 1: For load circuit and voltage waveforms, see page 1-14.