

SN54ALS373A, SN54AS373, SN74ALS373A, SN74AS373 OCTAL TRANSPARENT D-TYPE LATCHES WITH 3-STATE OUTPUTS

SDAS083C – APRIL 1982 – REVISED MARCH 2002

- Eight Latches in a Single Package
- 3-State Bus-Driving True Outputs
- Full Parallel Access for Loading
- Buffered Control Inputs
- pnp Inputs Reduce dc Loading on Data Lines

description

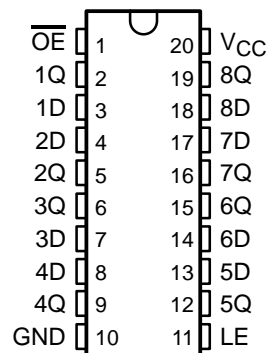
These octal transparent D-type latches feature 3-state outputs designed specifically for driving highly capacitive or relatively low-impedance loads. They are particularly suitable for implementing buffer registers, I/O ports, bidirectional bus drivers, and working registers.

While the latch-enable (LE) input is high, the Q outputs follow the data (D) inputs. When LE is taken low, the Q outputs are latched at the logic levels set up at the D inputs.

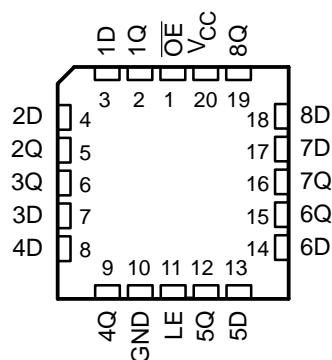
A buffered output-enable (\overline{OE}) input can be used to place the eight outputs in either a normal logic state (high or low) or a high-impedance state. In the high-impedance state, the outputs neither load nor drive the bus lines significantly. The high-impedance state and the increased drive provide the capability to drive bus lines without interface or pullup components.

\overline{OE} does not affect internal operations of the latches. Old data can be retained or new data can be entered while the outputs are off.

SN54ALS373A, . . . J OR W PACKAGE
SN54AS373 . . . J PACKAGE
SN74ALS373A, SN74AS373 . . . DW, N, OR NS PACKAGE
(TOP VIEW)



SN54ALS373A, SN54AS373 . . . FK PACKAGE
(TOP VIEW)



Please be aware that an important notice concerning availability, standard warranty, and use in critical applications of Texas Instruments semiconductor products and disclaimers thereto appears at the end of this data sheet.

PRODUCTION DATA information is current as of publication date. Products conform to specifications per the terms of Texas Instruments standard warranty. Production processing does not necessarily include testing of all parameters.

 **TEXAS
INSTRUMENTS**

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On products compliant to MIL-PRF-38535, all parameters are tested unless otherwise noted. On all other products, production processing does not necessarily include testing of all parameters.

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OCTAL TRANSPARENT D-TYPE LATCHES

WITH 3-STATE OUTPUTS

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ORDERING INFORMATION

T _A	PACKAGE†		ORDERABLE PART NUMBER	TOP-SIDE MARKING	
0°C to 70°C	PDIP – N	Tube	SN74ALS373AN	SN74ALS373AN	
			SN74AS373N	SN74AS373N	
	SOIC – DW	Tube	SN74ALS373ADW	ALS373A	
			SN74ALS373ADWR		
			Tape and reel	SN74AS373DW	AS373
				SN74AS373DWR	
	SOP – NS	Tape and reel	SN74ALS373ANSR	ALS373A	
SN74AS373NSR			74AS373		
–55°C to 125°C	CDIP – J	Tube	SNJ54ALS373AJ	SNJ54ALS373AJ	
			SNJ54AS373J	SNJ54AS373J	
	CFP – W	Tube	SNJ54ALS373AW	SNJ54ALS373AW	
	LCCC – FK	Tube	SNJ54ALS373AFK	SNJ54ALS373AFK	
			SNJ54AS373FK	SNJ54AS373FK	

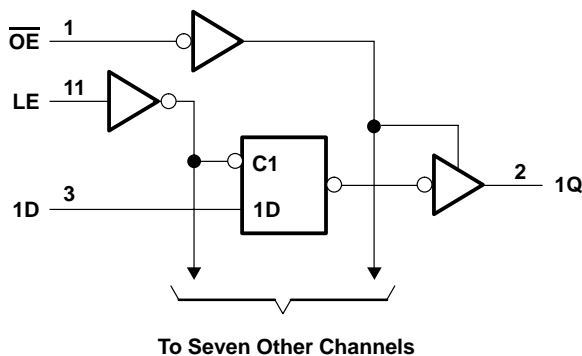
† Package drawings, standard packing quantities, thermal data, symbolization, and PCB design guidelines are available at www.ti.com/sc/package.

FUNCTION TABLE

(each latch)

INPUTS			OUTPUT
\overline{OE}	LE	D	Q
L	H	H	H
L	H	L	L
L	L	X	Q ₀
H	X	X	Z

logic diagram (positive logic)



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PACKAGING INFORMATION

Orderable Device	Status ⁽¹⁾	Package Type	Package Drawing	Pins	Package Qty	Eco Plan ⁽²⁾	Lead/Ball Finish	MSL Peak Temp ⁽³⁾
83020012A	ACTIVE	LCCC	FK	20	1	TBD	Call TI	Level-NC-NC-NC
8302001RA	ACTIVE	CDIP	J	20	1	TBD	Call TI	Level-NC-NC-NC
8302001SA	ACTIVE	CFP	W	20	1	TBD	Call TI	Level-NC-NC-NC
JM38510/37203B2A	ACTIVE	LCCC	FK	20	1	TBD	Call TI	Level-NC-NC-NC
JM38510/37203BRA	ACTIVE	CDIP	J	20	1	TBD	Call TI	Level-NC-NC-NC
SN54ALS373AJ	ACTIVE	CDIP	J	20	1	TBD	Call TI	Level-NC-NC-NC
SN54AS373J	ACTIVE	CDIP	J	20	1	TBD	Call TI	Level-NC-NC-NC
SN74ALS373ADBLE	OBSOLETE	SSOP	DB	20		TBD	Call TI	Call TI
SN74ALS373ADBR	ACTIVE	SSOP	DB	20	2000	Pb-Free (RoHS)	CU NIPDAU	Level-2-260C-1 YEAR/ Level-1-235C-UNLIM
SN74ALS373ADW	ACTIVE	SOIC	DW	20	25	Pb-Free (RoHS)	CU NIPDAU	Level-2-250C-1 YEAR/ Level-1-235C-UNLIM
SN74ALS373ADWR	ACTIVE	SOIC	DW	20	2000	Pb-Free (RoHS)	CU NIPDAU	Level-2-250C-1 YEAR/ Level-1-235C-UNLIM
SN74ALS373AN	ACTIVE	PDIP	N	20	20	Pb-Free (RoHS)	CU NIPDAU	Level-NC-NC-NC
SN74ALS373AN3	OBSOLETE	PDIP	N	20		TBD	Call TI	Call TI
SN74ALS373ANSR	ACTIVE	SO	NS	20	2000	Pb-Free (RoHS)	CU NIPDAU	Level-2-260C-1 YEAR/ Level-1-235C-UNLIM
SN74AS373DW	ACTIVE	SOIC	DW	20	25	Pb-Free (RoHS)	CU NIPDAU	Level-2-250C-1 YEAR/ Level-1-235C-UNLIM
SN74AS373DWR	ACTIVE	SOIC	DW	20	2000	Pb-Free (RoHS)	CU NIPDAU	Level-2-250C-1 YEAR/ Level-1-235C-UNLIM
SN74AS373N	ACTIVE	PDIP	N	20	20	Pb-Free (RoHS)	CU NIPDAU	Level-NC-NC-NC
SN74AS373N3	OBSOLETE	PDIP	N	20		TBD	Call TI	Call TI
SN74AS373NSR	ACTIVE	SO	NS	20	2000	Pb-Free (RoHS)	CU NIPDAU	Level-2-260C-1 YEAR/ Level-1-235C-UNLIM
SNJ54ALS373AFK	ACTIVE	LCCC	FK	20	1	TBD	Call TI	Level-NC-NC-NC
SNJ54ALS373AJ	ACTIVE	CDIP	J	20	1	TBD	Call TI	Level-NC-NC-NC
SNJ54ALS373AW	ACTIVE	CFP	W	20	1	TBD	Call TI	Level-NC-NC-NC
SNJ54AS373FK	ACTIVE	LCCC	FK	20	1	TBD	Call TI	Level-NC-NC-NC
SNJ54AS373J	ACTIVE	CDIP	J	20	1	TBD	Call TI	Level-NC-NC-NC

⁽¹⁾ The marketing status values are defined as follows:

ACTIVE: Product device recommended for new designs.

LIFEBUY: TI has announced that the device will be discontinued, and a lifetime-buy period is in effect.

NRND: Not recommended for new designs. Device is in production to support existing customers, but TI does not recommend using this part in a new design.

PREVIEW: Device has been announced but is not in production. Samples may or may not be available.

OBSOLETE: TI has discontinued the production of the device.

⁽²⁾ Eco Plan - The planned eco-friendly classification: Pb-Free (RoHS) or Green (RoHS & no Sb/Br) - please check <http://www.ti.com/productcontent> for the latest availability information and additional product content details.

TBD: The Pb-Free/Green conversion plan has not been defined.

Pb-Free (RoHS): TI's terms "Lead-Free" or "Pb-Free" mean semiconductor products that are compatible with the current RoHS requirements for all 6 substances, including the requirement that lead not exceed 0.1% by weight in homogeneous materials. Where designed to be soldered at high temperatures, TI Pb-Free products are suitable for use in specified lead-free processes.

Green (RoHS & no Sb/Br): TI defines "Green" to mean Pb-Free (RoHS compatible), and free of Bromine (Br) and Antimony (Sb) based flame