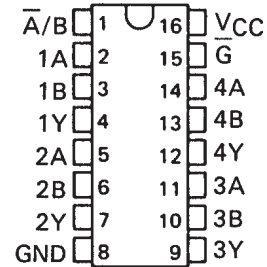


# SN54LS257B, SN54LS258B, SN54S257, SN54S258 SN74LS257B, SN74LS258B, SN74S257, SN74S258 QUADRUPLE 2-LINE TO 1-LINE DATA SELECTORS/MULTIPLEXERS

SDLS148 – OCTOBER 1976 – REVISED MARCH 1988

- Three-State Outputs Interface Directly with System Bus
- 'LS257B and 'LS258B Offer Three Times the Sink-Current Capability of the Original 'LS257 and 'LS258
- Same Pin Assignments as SN54LS157, SN74LS157, SN54S157, SN74S157, and SN54LS158, SN74LS158, SN54S158, SN74S158
- Provides Bus Interface from Multiple Sources in High-Performance Systems

SN54LS257B, SN54S257,  
SN54LS258B, SN54S258 . . . J OR W PACKAGE  
SN74LS257B, SN74S257,  
SN74LS258B, SN74S258 . . . D OR N PACKAGE  
(TOP VIEW)



	AVERAGE PROPAGATION DELAY FROM DATA INPUT	TYPICAL POWER DISSIPATION†
'LS257B	9 ns	55 mW
'LS258B	9 ns	55 mW
'S257	4.8 ns	320 mW
'S258	4 ns	280 mW

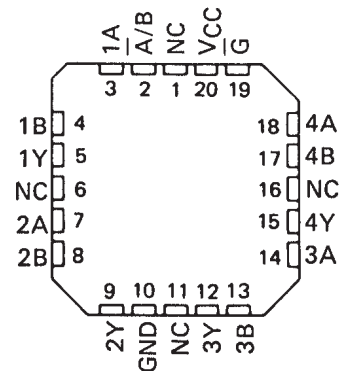
† Off state (worst case)

## description

These devices are designed to multiplex signals from four-bit data sources to four-output data lines in bus-organized systems. The 3-state outputs will not load the data lines when the output control pin ( $\bar{G}$ ) is at a high-logic level.

Series 54LS and 54S are characterized for operation over the full military temperature range of  $-55^{\circ}\text{C}$  to  $125^{\circ}\text{C}$ ; Series 74LS and 74S are characterized for operation from  $0^{\circ}\text{C}$  to  $70^{\circ}\text{C}$ .

SN54LS257B, SN54S257,  
SN54LS258B, SN54S258 . . . FK PACKAGE  
(TOP VIEW)



NC-No internal connection.

FUNCTION TABLE

OUTPUT CONTROL	INPUTS		OUTPUT Y		
	SELECT	A	B	'LS257B 'S257	'LS258B 'S258
H	X	X	X	Z	Z
L	L	L	X	L	H
L	L	H	X	H	L
L	H	X	L	L	H
L	H	X	H	H	L

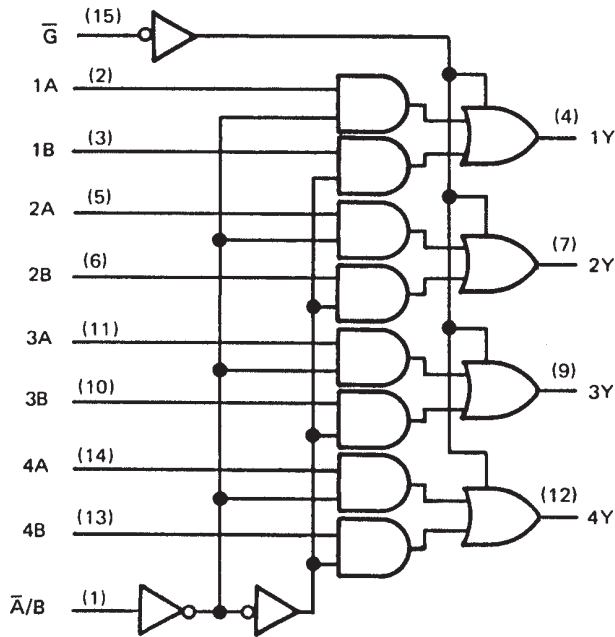
H = high level, L = low level, X = irrelevant,  
Z = high impedance (off)

SN54LS257B, SN54LS258B, SN54S257, SN54S258  
 SN74LS257B, SN74LS258B, SN74S257, SN74S258  
 QUADRUPLE 2-LINE TO 1-LINE DATA SELECTORS/MULTIPLEXERS

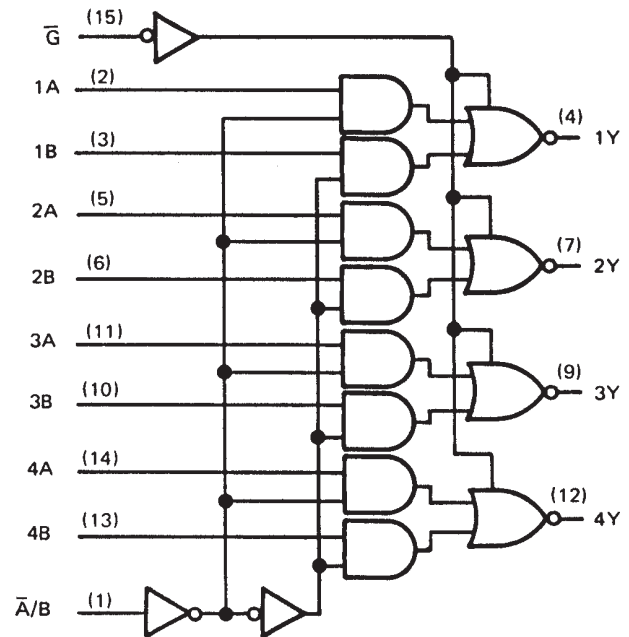
SDLS148 - OCTOBER 1976 - REVISED MARCH 1988

logic diagrams (positive logic)

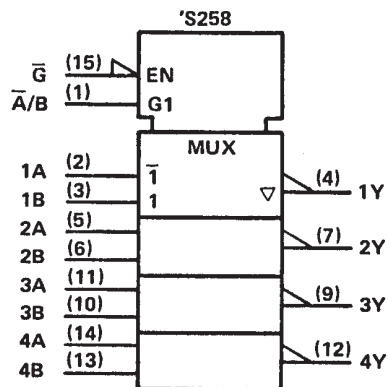
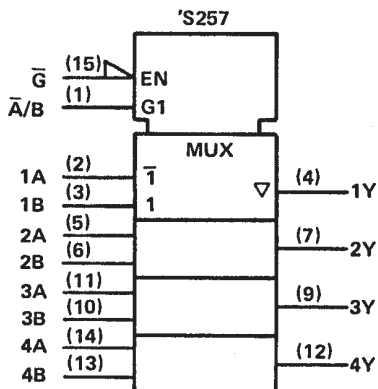
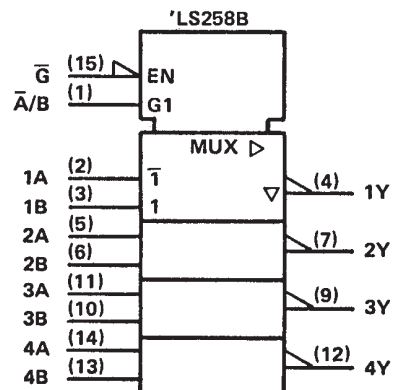
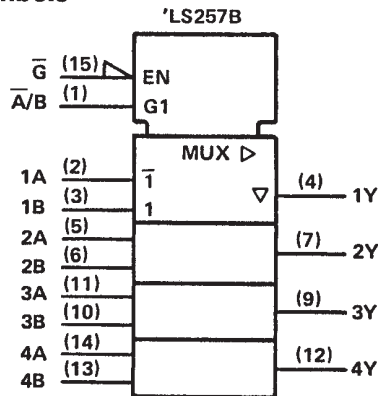
'LS257B, 'S257



'LS258B, 'S258



logic symbols†



†These symbols are in accordance with ANSI/IEEE Std 91-1984 and IEC Publication 617-12. Pin numbers shown are for D, J, N, and W packages.

Orderable Device	Status <sup>(1)</sup>	Package Type	Package Drawing	Pins	Package Qty	Eco Plan <sup>(2)</sup>	Lead/Ball Finish	MSL Peak Temp <sup>(3)</sup>
SN74LS257BDR	ACTIVE	SOIC	D	16	2500	Pb-Free (RoHS)	CU NIPDAU	Level-2-260C-1 YEAR/ Level-1-235C-UNLIM
SN74LS257BDR	ACTIVE	SOIC	D	16	2500	Pb-Free (RoHS)	CU NIPDAU	Level-2-260C-1 YEAR/ Level-1-235C-UNLIM
SN74LS257BDRE4	ACTIVE	SOIC	D	16	2500	Pb-Free (RoHS)	CU NIPDAU	Level-2-260C-1 YEAR/ Level-1-235C-UNLIM
SN74LS257BDRE4	ACTIVE	SOIC	D	16	2500	Pb-Free (RoHS)	CU NIPDAU	Level-2-260C-1 YEAR/ Level-1-235C-UNLIM
SN74LS257BN	ACTIVE	PDIP	N	16	25	Pb-Free (RoHS)	CU NIPDAU	Level-NC-NC-NC
SN74LS257BN	ACTIVE	PDIP	N	16	25	Pb-Free (RoHS)	CU NIPDAU	Level-NC-NC-NC
SN74LS257BN3	OBSOLETE	PDIP	N	16		TBD	Call TI	Call TI
SN74LS257BN3	OBSOLETE	PDIP	N	16		TBD	Call TI	Call TI
SN74LS257BNSR	ACTIVE	SO	NS	16	2000	Pb-Free (RoHS)	CU NIPDAU	Level-2-260C-1 YEAR/ Level-1-235C-UNLIM
SN74LS257BNSR	ACTIVE	SO	NS	16	2000	Pb-Free (RoHS)	CU NIPDAU	Level-2-260C-1 YEAR/ Level-1-235C-UNLIM
SN74LS257BNSRE4	ACTIVE	SO	NS	16	2000	Pb-Free (RoHS)	CU NIPDAU	Level-2-260C-1 YEAR/ Level-1-235C-UNLIM
SN74LS257BNSRE4	ACTIVE	SO	NS	16	2000	Pb-Free (RoHS)	CU NIPDAU	Level-2-260C-1 YEAR/ Level-1-235C-UNLIM
SN74LS258BD	ACTIVE	SOIC	D	16	40	Pb-Free (RoHS)	CU NIPDAU	Level-2-260C-1 YEAR/ Level-1-235C-UNLIM
SN74LS258BD	ACTIVE	SOIC	D	16	40	Pb-Free (RoHS)	CU NIPDAU	Level-2-260C-1 YEAR/ Level-1-235C-UNLIM
SN74LS258BDE4	ACTIVE	SOIC	D	16	40	Pb-Free (RoHS)	CU NIPDAU	Level-2-260C-1 YEAR/ Level-1-235C-UNLIM
SN74LS258BDE4	ACTIVE	SOIC	D	16	40	Pb-Free (RoHS)	CU NIPDAU	Level-2-260C-1 YEAR/ Level-1-235C-UNLIM
SN74LS258BDR	ACTIVE	SOIC	D	16	2500	Pb-Free (RoHS)	CU NIPDAU	Level-2-260C-1 YEAR/ Level-1-235C-UNLIM
SN74LS258BDR	ACTIVE	SOIC	D	16	2500	Pb-Free (RoHS)	CU NIPDAU	Level-2-260C-1 YEAR/ Level-1-235C-UNLIM
SN74LS258BDRE4	ACTIVE	SOIC	D	16	2500	Pb-Free (RoHS)	CU NIPDAU	Level-2-260C-1 YEAR/ Level-1-235C-UNLIM
SN74LS258BDRE4	ACTIVE	SOIC	D	16	2500	Pb-Free (RoHS)	CU NIPDAU	Level-2-260C-1 YEAR/ Level-1-235C-UNLIM
SN74LS258BN	ACTIVE	PDIP	N	16	25	Pb-Free (RoHS)	CU NIPDAU	Level-NC-NC-NC
SN74LS258BN	ACTIVE	PDIP	N	16	25	Pb-Free (RoHS)	CU NIPDAU	Level-NC-NC-NC
SN74LS258BN3	OBSOLETE	PDIP	N	16		TBD	Call TI	Call TI
SN74LS258BN3	OBSOLETE	PDIP	N	16		TBD	Call TI	Call TI
SN74LS258BNE4	ACTIVE	PDIP	N	16	25	Pb-Free (RoHS)	CU NIPDAU	Level-NC-NC-NC
SN74LS258BNE4	ACTIVE	PDIP	N	16	25	Pb-Free (RoHS)	CU NIPDAU	Level-NC-NC-NC
SN74LS258BNSR	ACTIVE	SO	NS	16	2000	Pb-Free (RoHS)	CU NIPDAU	Level-2-260C-1 YEAR/ Level-1-235C-UNLIM
SN74LS258BNSR	ACTIVE	SO	NS	16	2000	Pb-Free	CU NIPDAU	Level-2-260C-1 YEAR/