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

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

[†]Off state (worst case)

description

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

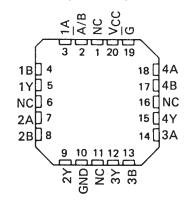
Series 54LS and 54S are characterized for operation over the full military temperature range of -55° C to 125°C; Series 74LS and 74S are characterized for operation from 0°C to 70°C.

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

(TOP VIEW)

Ā/B[1	U_{16}	□vcc
1AC	2	15	G
1BC	3	14	4 A
1Y[4	13] 4B
2A 🗌	5	12	□4Y
2вС	6	11] 3A
2 Y 🗌	7	10	□зв
GND	8	9]] 3Y





NC-No internal connection.

	FUN	CTION	ТАВ	LE	
	INPUTS			OUTE	Y TU
OUTPUT CONTROL	SELECT	A	B	′LS257В ′S257	'LS258B 'S258
н	х	х	Х	Z	Z
L	L,	L	х	L	н
L.	L	н	х	н	L
L	н	Х	L	L	н
L	Н	х	Н	н	L

H = high level, L = low level, X = irrelevant,

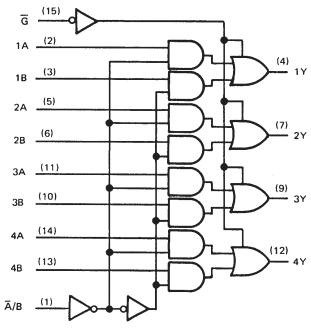
Z = high impedance (off)

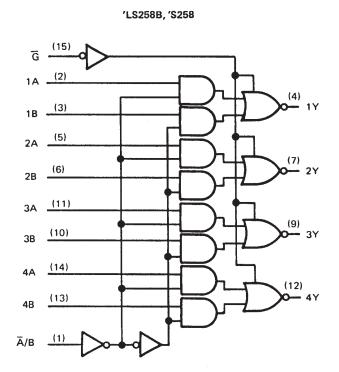


SN54LS257B, SN54LS258B, SN54S257, SN54S258 SN74LS257B, SN74LS258B, SN74S257, SN74S258 **QUADRUPLE 2-LINE TO 1-LINE DATA SELECTORS/MULTIPLEXERS** SDLS148 – OCTOBER 1976 – REVISED MARCH 1988

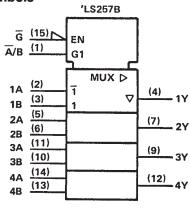
logic diagrams (positive logic)

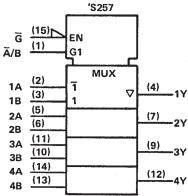


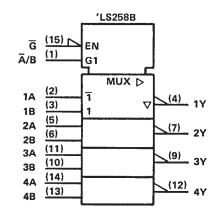


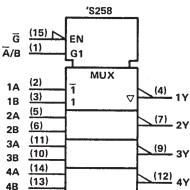


logic symbols[†]









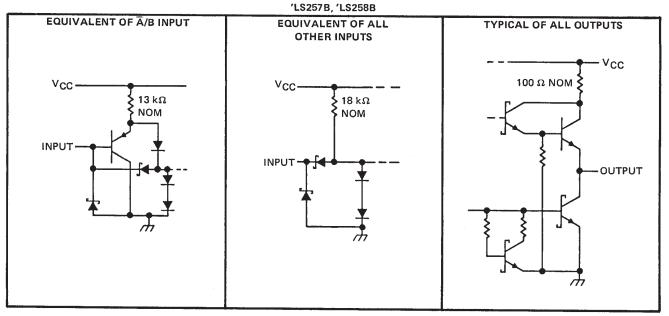
[†]These symbols are in accordance with ANSI/IEEE Std 91-1984 and IEC Publication 617-12. Pin numbers shown are for D, J, N, and W packages.



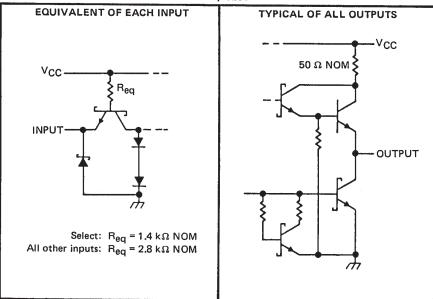
SN54LS257B, SN54LS258B, SN54S257, SN54S258 SN74LS257B, SN74LS258B, SN74S257, SN74S258 **QUADRUPLE 2-LINE TO 1-LINE DATA SELECTORS/MULTIPLEXERS**

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schematics of inputs and outputs



'S257, 'S258



absolute maximum ratings over operating free-air temperature range (unless otherwise noted)

Supply voltage, V _{CC} (see Note 1)	
Input voltage: 'LS257B, 'LS258B Circuit	····· 7 V
'S257, 'S258 Circuits	5.5 V
Off-state output voltage	5.5 V
Operating free-air temperature range: SN	⁴ LS', SN54S' Circuits
	4LS', SN74S' Circuits 0°C to 70°C
Storage temperature range	

NOTE 1: Voltage values are with respect to network ground terminal.



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

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recommended operating conditions

			S	N54LS	57		UNIT		
		MIN		NOM	MAX	MIN	NOM	MAX	
Vcc	Supply voltage	4.5	;	5	5.5	4.75	5	5.25	V
VIH	High-level input voltage	2	2			2			V
VIL	Low-level input voltage				0.7			0.8	V
ЮН	High-level output current				- 1			- 2.6	mA
IOL	Low-level output current				12			24	mA
TA	Operating free-air temperature	- 55	;		125	0		70	°C

electrical characteristics over recommended operating free-air temperature range (unless otherwise noted)

1	PARAMETER	TE	ST CONDITION	uet		SN54LS	s'		SN74LS	5'	
		• •			MIN	түр‡	MAX	MIN	TYP‡	MAX	UNIT
VIK		V _{CC} = MIN,	1 _I = 18 mA				- 1.5			1.5	V
VOH		V _{CC} = MIN, I _{OH} = MAX	V _{IH} = 2 V,	V _{IL} = MAX,	2.4	3.4		2.4	3.1		v
VOL		$V_{CC} = MIN,$	V _{IH} = 2 V,	I _{OL} = 12 mA		0.25	0.4		0.25	0.4	<u> </u>
		VIL = MAX,		I _{OL} = 24 mA					0.35	0.5	V
^I OZH			V _{IH} = 2 V,	V _O = 2.7 V			20			20	μA
IOZL		V _{CC} -MAX,	V _{1H} = 2 V,	V _O = 0.4 V			20			- 20	μΑ
1		V _{CC} = MAX,	V] = 7 V				0.1			0.1	mA
<u>_IH</u>		$V_{CC} = MAX,$	V1 = 2.7 V				20			20	μΑ
<u>կլ</u>		V _{CC} = MAX,	V _I = 0.4 V				- 0.4			- 0.4	mA
loss		V _{CC} = MAX,			- 30		- 130	- 30		- 130	mA
	All outputs high					8	12		8	12	
	All outputs low			'LS257B		12	18		12	18	1
	All outputs off		Cas Nata O			13	19		13	19	1
lcc	All outputs high	$V_{CC} = MAX,$	See Note 2			6	9		6	9	1 mA
	All outputs low			'LS258B		10	15		10	15	1
	All outputs off					11	16		11	16	1

[†]For conditions shown as MIN or MAX, use the appropriate value specified under recommended operating conditions. ‡All typical values are at $V_{CC} = 5 V$, $T_A = 25^{\circ}C$.

§Not more than one output should be shorted at a time and duration of the short-circuit should not exceed one second.

NOTE 2: ICC is measured with all outputs open and all possible inputs grounded while achieving the stated output conditions.

switching characteristics, V_{CC} = 5 V, T_A = 25°C, R_L = 667 Ω

PARAMETER	FROM	то	TEST CON	DITIONS		'LS257	В		'LS258	В	
	(INPUT)	(OUTPUT)	TEST CON	DITIONS	MIN	ТҮР	MAX	MIN	ТҮР	MAX	UNIT
^t PLH	Data	Any				8	13		7	12	
^t PHL	Data	Ally				10	15		11	17	ns
^t PLH	Select	Any	C _L = 45 pF,	See Note 3		16	21		14	21	
tphl	001000		CL - 45 pF,	See Note 3		17	24		19	24	ns
^t PZH	Output	Any				15	30		15	30	
^t PZL	Control					19	30		20	30	ns
^t PHZ	Output	Any		See Mate 2		18	30		18	30	
tplz	Control		C _L = 5 pF,	See Note 3		16	25		16	25	ns

 f_{tpLH} = propagation delay time, low-to-high-level output

tpHL = propagation delay time, high-to-low-level output

tpzH = output enable time to high level

NOTE 3: Load circuits and voltage waveforms are shown in Section 1.

tpzL = output enable time to low level

tpHZ = output disable time from high level

tpLZ = output disable time from low level



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

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recommended operating conditions

		SN54S'			SN745	,	
	MIN	NOM	MAX	MIN	NOM	MAX	
Supply voltage, V _{CC}	4.5	5	5.5	4.75	5	5.25	V
High-level output current, IOH			-2			6.5	mA
Low-level output current, IOL			20			20	mA
Operating free-air temperature, TA	55		125	0		70	°C

electrical characteristics over recommended operating free-air temperature range (unless otherwise noted)

							'S257			'S 258		UNIT
	PARAME	TER	TEST	CONDITIONS	Ì	MIN	түр‡	MAX	MIN	түр‡	MAX	UNIT
VIH	High-level input	voltage				2			2			V
VIL	Low-level input							0.8			0.8	V
VIK	Input clamp vol		Vcc = MIN,	lı = -18 mA				1.2			-1.2	V
			$V_{CC} = MIN,$ $V_{IL} = 0.8 V,$	V _{IH} = 2 V, I _{OH} = -1 mA	SN74S'	2.7			2.7			v
∨он	High-level output	ut voltage	V _{CC} = MIN,	V _{IH} = 2 V,	SN54S'	2.4	3.4		2.4	3.4		Ť
			VIL = 0.8 V,	I _{OH} = MAX	SN74S'	2.4	3.2		2.4	3.2		
VOL	Low-level output	ut voltage	V _{CC} = MIN, V _{IL} = 0.8 V,	V _{1H} = 2 V, I _{OL} = 20 mA				0.5			0.5	v
lozh	Off-state output		$V_{CC} = MAX,$ $V_{O} = 2.4 V$	V _{IH} = 2 V,				50			50	μA
IOZL	Off-state outpu	t current,	V _{CC} = MAX, V _O = 0.5 V	V _{IH} = 2 V,				-50			-50	μΑ
lį.	Input current a input voltage	t maximum	V _{CC} = MAX,	V _I = 5.5 V				1			1	mA
	High-level	S input		N 0 7 M		1		100			100	μΑ
ЧΗ	input current	Any other	V _{CC} = MAX,	v] = 2.7 v				50			50	
	Low-level	S input		N - OEM				4			-4	- mA
ЧL	input current	Any other	V _{CC} = MAX	v j = 0.5 v				-2			2	
los	Short-circuit ou	Itput current §	V _{CC} = MAX			-40		-100	-40		-100	mA
		All outputs high					44	68		36	56	
Icc	Supply current	All outputs low	V _{CC} = MAX,	, See Note 2			60	93		52	81	mA
		All outputs off]				64	99		56	87	

[†]For conditions shown as MIN or MAX, use the appropriate value specified under recommended operating conditions.

[‡]All typical values are at $V_{CC} = 5 V$, $T_A = 25^{\circ}C$.

\$ Not more than one output should be shorted at a time and duration of the short-circuit should not exceed one second.

NOTE 2: ICC is measured with all outputs open and all possible inputs grounded while achieving the stated output conditions.

switching characteristics, VCC = 5 V, TA = 25°C, RL = 280 Ω

	FROM	то	TEST		'S257			'S258		UNIT
PARAMETER	(INPUT)	(OUTPUT)	CONDITIONS	MIN	ТҮР	MAX	MIN	ТҮР	MAX	וואוטן
^t PLH					5	7.5		4	6	ns
tPHL	Data	Any			4.5	6.5		4	6	
tPLH			C _L = 15 pF,		8.5	15		8	12	ns
tPHL	Select	Any	See Note 3		8.5	15		7.5	12	113
tPZH	Output		1		13	19.5		13	19.5	ns
tPZL	Control	Αηγ			14	21		14	21	1
tPHZ	Output	<u> </u>	$C_L = 5 pF$,		5.5	8.5		5.5	8.5	ns
tPLZ	Control	Any	See Note 3		9	14		9	14	

¶f_{max} = Maximum clock frequency

tpLH = propagation delay time, low-to-high-level output

tpHL = propagation delay time, high-to-low-level output

tpZH = output enable time to high level

NOTE 3: Load circuits and voltage waveforms are shown in Section 1.

tPZL ≡ output enable time to low level $t_{PHZ} \equiv$ output disable time from high level

 $t_{PLZ} \equiv$ output disable time from low level





23-Mar-2012

PACKAGING INFORMATION

Orderable Device	Status ⁽¹⁾	Package Type	Package Drawing	Pins	Package Qty	Eco Plan ⁽²⁾	Lead/ Ball Finish	MSL Peak Temp ⁽³⁾	Samples (Requires Login)
5962-7603701VEA	ACTIVE	CDIP	J	16	25	TBD	A42	N / A for Pkg Type	
5962-7603701VFA	ACTIVE	CFP	W	16	25	TBD	A42	N / A for Pkg Type	
5962-7603701VFA	ACTIVE	CFP	W	16	25	TBD	A42	N / A for Pkg Type	
7603701EA	ACTIVE	CDIP	J	16	1	TBD	Call TI	Call TI	
7603701EA	ACTIVE	CDIP	J	16	1	TBD	Call TI	Call TI	
7603701FA	ACTIVE	CFP	W	16	1	TBD	Call TI	Call TI	
7603701FA	ACTIVE	CFP	W	16	1	TBD	Call TI	Call TI	
76038012A	ACTIVE	LCCC	FK	20	1	TBD	Call TI	Call TI	
76038012A	ACTIVE	LCCC	FK	20	1	TBD	Call TI	Call TI	
7603801EA	ACTIVE	CDIP	J	16	1	TBD	Call TI	Call TI	
7603801EA	ACTIVE	CDIP	J	16	1	TBD	Call TI	Call TI	
7603801FA	ACTIVE	CFP	W	16	1	TBD	Call TI	Call TI	
7603801FA	ACTIVE	CFP	W	16	1	TBD	Call TI	Call TI	
8002301EA	ACTIVE	CDIP	J	16	1	TBD	Call TI	Call TI	
8002301EA	ACTIVE	CDIP	J	16	1	TBD	Call TI	Call TI	
8002301FA	ACTIVE	CFP	W	16	1	TBD	Call TI	Call TI	
8002301FA	ACTIVE	CFP	W	16	1	TBD	Call TI	Call TI	
JM38510/07906BEA	ACTIVE	CDIP	J	16	1	TBD	A42	N / A for Pkg Type	
JM38510/07906BEA	ACTIVE	CDIP	J	16	1	TBD	A42	N / A for Pkg Type	
JM38510/07906BFA	ACTIVE	CFP	W	16	1	TBD	A42	N / A for Pkg Type	
JM38510/07906BFA	ACTIVE	CFP	W	16	1	TBD	A42	N / A for Pkg Type	
JM38510/30906B2A	ACTIVE	LCCC	FK	20	1	TBD	POST-PLATE	N / A for Pkg Type	
JM38510/30906B2A	ACTIVE	LCCC	FK	20	1	TBD	POST-PLATE	N / A for Pkg Type	
JM38510/30906BEA	ACTIVE	CDIP	J	16	1	TBD	A42	N / A for Pkg Type	
JM38510/30906BEA	ACTIVE	CDIP	J	16	1	TBD	A42	N / A for Pkg Type	
JM38510/30906BFA	ACTIVE	CFP	W	16	1	TBD	A42	N / A for Pkg Type	
JM38510/30906BFA	ACTIVE	CFP	W	16	1	TBD	A42	N / A for Pkg Type	
M38510/07906BEA	ACTIVE	CDIP	J	16	1	TBD	A42	N / A for Pkg Type	
M38510/07906BEA	ACTIVE	CDIP	J	16	1	TBD	A42	N / A for Pkg Type	
M38510/07906BFA	ACTIVE	CFP	W	16	1	TBD	A42	N / A for Pkg Type	



23-Mar-2012

Orderable Device	Status ⁽¹⁾	Package Type	Package Drawing	Pins	Package Qty	Eco Plan ⁽²⁾	Lead/ Ball Finish	MSL Peak Temp ⁽³⁾	Samples (Requires Login)
M38510/07906BFA	ACTIVE	CFP	W	16	1	TBD	A42	N / A for Pkg Type	
M38510/30906B2A	ACTIVE	LCCC	FK	20	1	TBD	POST-PLATE	N / A for Pkg Type	
M38510/30906B2A	ACTIVE	LCCC	FK	20	1	TBD	POST-PLATE	N / A for Pkg Type	
M38510/30906BEA	ACTIVE	CDIP	J	16	1	TBD	A42	N / A for Pkg Type	
M38510/30906BEA	ACTIVE	CDIP	J	16	1	TBD	A42	N / A for Pkg Type	
M38510/30906BFA	ACTIVE	CFP	W	16	1	TBD	A42	N / A for Pkg Type	
M38510/30906BFA	ACTIVE	CFP	W	16	1	TBD	A42	N / A for Pkg Type	
SN54LS257BJ	ACTIVE	CDIP	J	16	1	TBD	A42	N / A for Pkg Type	
SN54LS257BJ	ACTIVE	CDIP	J	16	1	TBD	A42	N / A for Pkg Type	
SN54LS258BJ	ACTIVE	CDIP	J	16	1	TBD	A42	N / A for Pkg Type	
SN54LS258BJ	ACTIVE	CDIP	J	16	1	TBD	A42	N / A for Pkg Type	
SN54S257J	ACTIVE	CDIP	J	16	1	TBD	A42	N / A for Pkg Type	
SN54S257J	ACTIVE	CDIP	J	16	1	TBD	A42	N / A for Pkg Type	
SN54S258J	ACTIVE	CDIP	J	16	1	TBD	A42	N / A for Pkg Type	
SN54S258J	ACTIVE	CDIP	J	16	1	TBD	A42	N / A for Pkg Type	
SN74LS257BD	ACTIVE	SOIC	D	16	40	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM	
SN74LS257BD	ACTIVE	SOIC	D	16	40	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM	
SN74LS257BDE4	ACTIVE	SOIC	D	16	40	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM	
SN74LS257BDE4	ACTIVE	SOIC	D	16	40	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM	
SN74LS257BDG4	ACTIVE	SOIC	D	16	40	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM	
SN74LS257BDG4	ACTIVE	SOIC	D	16	40	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM	
SN74LS257BDR	ACTIVE	SOIC	D	16	2500	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM	
SN74LS257BDR	ACTIVE	SOIC	D	16	2500	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM	
SN74LS257BDRE4	ACTIVE	SOIC	D	16	2500	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM	



23-Mar-2012

Orderable Device	Status ⁽¹⁾	Package Type	Package Drawing	Pins	Package Qty	Eco Plan ⁽²⁾	Lead/ Ball Finish	MSL Peak Temp ⁽³⁾	Samples (Requires Login)
SN74LS257BDRE4	ACTIVE	SOIC	D	16	2500	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM	
SN74LS257BDRG4	ACTIVE	SOIC	D	16	2500	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM	
SN74LS257BDRG4	ACTIVE	SOIC	D	16	2500	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM	
SN74LS257BN	ACTIVE	PDIP	Ν	16	25	Pb-Free (RoHS)	CU NIPDAU	N / A for Pkg Type	
SN74LS257BN	ACTIVE	PDIP	N	16	25	Pb-Free (RoHS)	CU NIPDAU	N / A for Pkg Type	
SN74LS257BN3	OBSOLETE	PDIP	Ν	16		TBD	Call TI	Call TI	
SN74LS257BN3	OBSOLETE	PDIP	Ν	16		TBD	Call TI	Call TI	
SN74LS257BNE4	ACTIVE	PDIP	Ν	16	25	Pb-Free (RoHS)	CU NIPDAU	N / A for Pkg Type	
SN74LS257BNE4	ACTIVE	PDIP	Ν	16	25	Pb-Free (RoHS)	CU NIPDAU	N / A for Pkg Type	
SN74LS257BNSR	ACTIVE	SO	NS	16	2000	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM	
SN74LS257BNSR	ACTIVE	SO	NS	16	2000	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM	
SN74LS257BNSRE4	ACTIVE	SO	NS	16	2000	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM	
SN74LS257BNSRE4	ACTIVE	SO	NS	16	2000	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM	
SN74LS257BNSRG4	ACTIVE	SO	NS	16	2000	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM	
SN74LS257BNSRG4	ACTIVE	SO	NS	16	2000	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM	
SN74LS258BD	ACTIVE	SOIC	D	16	40	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM	
SN74LS258BD	ACTIVE	SOIC	D	16	40	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM	
SN74LS258BDE4	ACTIVE	SOIC	D	16	40	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM	
SN74LS258BDE4	ACTIVE	SOIC	D	16	40	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM	
SN74LS258BDG4	ACTIVE	SOIC	D	16	40	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM	



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Orderable Device	Status (1)	Package Type	Package Drawing	Pins	Package Qty	Eco Plan ⁽²⁾	Lead/ Ball Finish	MSL Peak Temp ⁽³⁾	Samples (Requires Login)
SN74LS258BDG4	ACTIVE	SOIC	D	16	40	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM	
SN74LS258BDR	ACTIVE	SOIC	D	16	2500	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM	
SN74LS258BDR	ACTIVE	SOIC	D	16	2500	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM	
SN74LS258BDRE4	ACTIVE	SOIC	D	16	2500	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM	
SN74LS258BDRE4	ACTIVE	SOIC	D	16	2500	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM	
SN74LS258BDRG4	ACTIVE	SOIC	D	16	2500	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM	
SN74LS258BDRG4	ACTIVE	SOIC	D	16	2500	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM	
SN74LS258BN	ACTIVE	PDIP	Ν	16	25	Pb-Free (RoHS)	CU NIPDAU	N / A for Pkg Type	
SN74LS258BN	ACTIVE	PDIP	Ν	16	25	Pb-Free (RoHS)	CU NIPDAU	N / A for Pkg Type	
SN74LS258BN3	OBSOLETE	E PDIP	Ν	16		TBD	Call TI	Call TI	
SN74LS258BN3	OBSOLETE	E PDIP	Ν	16		TBD	Call TI	Call TI	
SN74LS258BNE4	ACTIVE	PDIP	Ν	16	25	Pb-Free (RoHS)	CU NIPDAU	N / A for Pkg Type	
SN74LS258BNE4	ACTIVE	PDIP	Ν	16	25	Pb-Free (RoHS)	CU NIPDAU	N / A for Pkg Type	
SN74S257N	NRND	PDIP	Ν	16	25	Pb-Free (RoHS)	CU NIPDAU	N / A for Pkg Type	
SN74S257N	NRND	PDIP	Ν	16	25	Pb-Free (RoHS)	CU NIPDAU	N / A for Pkg Type	
SN74S257N3	OBSOLETE	E PDIP	Ν	16		TBD	Call TI	Call TI	
SN74S257N3	OBSOLETE	E PDIP	Ν	16		TBD	Call TI	Call TI	
SN74S257NE4	NRND	PDIP	Ν	16	25	Pb-Free (RoHS)	CU NIPDAU	N / A for Pkg Type	
SN74S257NE4	NRND	PDIP	Ν	16	25	Pb-Free (RoHS)	CU NIPDAU	N / A for Pkg Type	
SN74S258DR	OBSOLETE	SOIC	D	16		TBD	Call TI	Call TI	
SN74S258DR	OBSOLETE	SOIC	D	16		TBD	Call TI	Call TI	
SN74S258N	OBSOLETE	PDIP	Ν	16		TBD	Call TI	Call TI	
SN74S258N	OBSOLETE	PDIP	Ν	16		TBD	Call TI	Call TI	
SN74S258N3	OBSOLETE	PDIP	Ν	16		TBD	Call TI	Call TI	
SN74S258N3	OBSOLETE	E PDIP	Ν	16		TBD	Call TI	Call TI	
SNJ54LS257BFK	ACTIVE	LCCC	FK	20	1	TBD	POST-PLATE	N / A for Pkg Type	



23-Mar-2012

Orderable Device	Status ⁽¹⁾	Package Type	Package Drawing	Pins	Package Qty	Eco Plan ⁽²⁾	Lead/ Ball Finish	MSL Peak Temp ⁽³⁾	Samples (Requires Login)
SNJ54LS257BFK	ACTIVE	LCCC	FK	20	1	TBD	POST-PLATE	N / A for Pkg Type	
SNJ54LS257BJ	ACTIVE	CDIP	J	16	1	TBD	A42	N / A for Pkg Type	
SNJ54LS257BJ	ACTIVE	CDIP	J	16	1	TBD	A42	N / A for Pkg Type	
SNJ54LS257BW	ACTIVE	CFP	W	16	1	TBD	A42	N / A for Pkg Type	
SNJ54LS257BW	ACTIVE	CFP	W	16	1	TBD	A42	N / A for Pkg Type	
SNJ54LS258BFK	ACTIVE	LCCC	FK	20	1	TBD	POST-PLATE	N / A for Pkg Type	
SNJ54LS258BFK	ACTIVE	LCCC	FK	20	1	TBD	POST-PLATE	N / A for Pkg Type	
SNJ54LS258BJ	ACTIVE	CDIP	J	16	1	TBD	A42	N / A for Pkg Type	
SNJ54LS258BJ	ACTIVE	CDIP	J	16	1	TBD	A42	N / A for Pkg Type	
SNJ54LS258BW	ACTIVE	CFP	W	16	1	TBD	A42	N / A for Pkg Type	
SNJ54LS258BW	ACTIVE	CFP	W	16	1	TBD	A42	N / A for Pkg Type	
SNJ54S257FK	ACTIVE	LCCC	FK	20	1	TBD	POST-PLATE	N / A for Pkg Type	
SNJ54S257FK	ACTIVE	LCCC	FK	20	1	TBD	POST-PLATE	N / A for Pkg Type	
SNJ54S257J	ACTIVE	CDIP	J	16	1	TBD	A42	N / A for Pkg Type	
SNJ54S257J	ACTIVE	CDIP	J	16	1	TBD	A42	N / A for Pkg Type	
SNJ54S257W	ACTIVE	CFP	W	16	1	TBD	A42	N / A for Pkg Type	
SNJ54S257W	ACTIVE	CFP	W	16	1	TBD	A42	N / A for Pkg Type	
SNJ54S258FK	ACTIVE	LCCC	FK	20	1	TBD	POST-PLATE	N / A for Pkg Type	
SNJ54S258FK	ACTIVE	LCCC	FK	20	1	TBD	POST-PLATE	N / A for Pkg Type	
SNJ54S258J	ACTIVE	CDIP	J	16	1	TBD	A42	N / A for Pkg Type	
SNJ54S258J	ACTIVE	CDIP	J	16	1	TBD	A42	N / A for Pkg Type	
SNJ54S258W	ACTIVE	CFP	W	16	1	TBD	A42	N / A for Pkg Type	
SNJ54S258W	ACTIVE	CFP	W	16	1	TBD	A42	N / A for Pkg Type	

⁽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), Pb-Free (RoHS Exempt), 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.

PACKAGE OPTION ADDENDUM



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23-Mar-2012

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. **Pb-Free (RoHS Exempt):** This component has a RoHS exemption for either 1) lead-based flip-chip solder bumps used between the die and package, or 2) lead-based die adhesive used between the die and package die adhesive used between the die and package die adhesive used between the die adhesive used between the die adhesive use

Green (RoHS & no Sb/Br): TI defines "Green" to mean Pb-Free (RoHS compatible), and free of Bromine (Br) and Antimony (Sb) based flame retardants (Br or Sb do not exceed 0.1% by weight in homogeneous material)

⁽³⁾ MSL, Peak Temp. -- The Moisture Sensitivity Level rating according to the JEDEC industry standard classifications, and peak solder temperature.

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OTHER QUALIFIED VERSIONS OF SN54LS257B, SN54LS257B-SP, SN54LS258B, SN54S257, SN54S258, SN74LS257B, SN74LS258B, SN74S257, SN74S258 :

• Catalog: SN74LS257B, SN54LS257B, SN74LS258B, SN74S257, SN74S258

• Military: SN54LS257B, SN54LS258B, SN54S257, SN54S258

• Space: SN54LS257B-SP

NOTE: Qualified Version Definitions:

- Catalog TI's standard catalog product
- Military QML certified for Military and Defense Applications
- Space Radiation tolerant, ceramic packaging and qualified for use in Space-based application

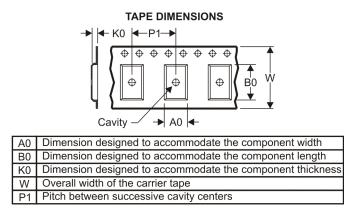
PACKAGE MATERIALS INFORMATION

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TAPE AND REEL INFORMATION





QUADRANT ASSIGNMENTS FOR PIN 1 ORIENTATION IN TAPE



*All dimensions are nominal												
Device	Package Type	Package Drawing		SPQ	Reel Diameter (mm)	Reel Width W1 (mm)	A0 (mm)	B0 (mm)	K0 (mm)	P1 (mm)	W (mm)	Pin1 Quadrant
SN74LS257BDR	SOIC	D	16	2500	330.0	16.4	6.5	10.3	2.1	8.0	16.0	Q1
SN74LS257BNSR	SO	NS	16	2000	330.0	16.4	8.2	10.5	2.5	12.0	16.0	Q1
SN74LS258BDR	SOIC	D	16	2500	330.0	16.4	6.5	10.3	2.1	8.0	16.0	Q1

TEXAS INSTRUMENTS

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PACKAGE MATERIALS INFORMATION

29-Jul-2011



*All dimensions are nominal

Device	Package Type	Package Drawing	Pins	SPQ	Length (mm)	Width (mm)	Height (mm)
SN74LS257BDR	SOIC	D	16	2500	333.2	345.9	28.6
SN74LS257BNSR	SO	NS	16	2000	346.0	346.0	33.0
SN74LS258BDR	SOIC	D	16	2500	333.2	345.9	28.6

J (R-GDIP-T**) 14 LEADS SHOWN

CERAMIC DUAL IN-LINE PACKAGE



NOTES: A. All linear dimensions are in inches (millimeters).

- B. This drawing is subject to change without notice.
- C. This package is hermetically sealed with a ceramic lid using glass frit.
- D. Index point is provided on cap for terminal identification only on press ceramic glass frit seal only.
- E. Falls within MIL STD 1835 GDIP1-T14, GDIP1-T16, GDIP1-T18 and GDIP1-T20.

W (R-GDFP-F16)

CERAMIC DUAL FLATPACK



- A. All linear dimensions are in inches (millimeters).
 - B. This drawing is subject to change without notice.
 - C. This package can be hermetically sealed with a ceramic lid using glass frit.
 - D. Index point is provided on cap for terminal identification only.
 - E. Falls within MIL STD 1835 GDFP1-F16 and JEDEC MO-092AC



LEADLESS CERAMIC CHIP CARRIER

FK (S-CQCC-N**) 28 TERMINAL SHOWN



NOTES: A. All linear dimensions are in inches (millimeters).

B. This drawing is subject to change without notice.

- C. This package can be hermetically sealed with a metal lid.
- D. Falls within JEDEC MS-004



N (R-PDIP-T**)

PLASTIC DUAL-IN-LINE PACKAGE

16 PINS SHOWN



NOTES:

- A. All linear dimensions are in inches (millimeters).B. This drawing is subject to change without notice.
- Falls within JEDEC MS-001, except 18 and 20 pin minimum body length (Dim A).
- \triangle The 20 pin end lead shoulder width is a vendor option, either half or full width.



D (R-PDSO-G16)

PLASTIC SMALL OUTLINE



NOTES: A. All linear dimensions are in inches (millimeters).

- B. This drawing is subject to change without notice.
- Body length does not include mold flash, protrusions, or gate burrs. Mold flash, protrusions, or gate burrs shall not exceed 0.006 (0,15) each side.
- Body width does not include interlead flash. Interlead flash shall not exceed 0.017 (0,43) each side.
- E. Reference JEDEC MS-012 variation AC.



4211283-4/D 06/11

D (R-PDSO-G16) PLASTIC SMALL OUTLINE Stencil Openings (Note D) Example Board Layout (Note C) -16x0,55 - 14x1,27 -14x1,27 16x1,95 4,80 4,80 Example Non Soldermask Defined Pad Example Pad Geometry (See Note C) 0,60 Example 2,00 Solder Mask Opening

(See Note E)

NOTES: A. All linear dimensions are in millimeters.

B. This drawing is subject to change without notice.

← 0,07 All Around

- C. Publication IPC-7351 is recommended for alternate designs.
- D. Laser cutting apertures with trapezoidal walls and also rounding corners will offer better paste release. Customers should contact their board assembly site for stencil design recommendations. Refer to IPC-7525 for other stencil recommendations.
 E. Customers should contact their board fabrication site for solder mask tolerances between and around signal pads.



MECHANICAL DATA

PLASTIC SMALL-OUTLINE PACKAGE

0,51 0,35 ⊕0,25⊛ 1,27 8 14 0,15 NOM 5,60 8,20 5,00 7,40 \bigcirc Gage Plane ₽ 0,25 7 1 1,05 0,55 0-10 Δ 0,15 0,05 Seating Plane — 2,00 MAX 0,10PINS ** 14 16 20 24 DIM 10,50 10,50 12,90 15,30 A MAX A MIN 9,90 9,90 12,30 14,70 4040062/C 03/03

NOTES: A. All linear dimensions are in millimeters.

NS (R-PDSO-G**)

14-PINS SHOWN

- B. This drawing is subject to change without notice.
- C. Body dimensions do not include mold flash or protrusion, not to exceed 0,15.



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