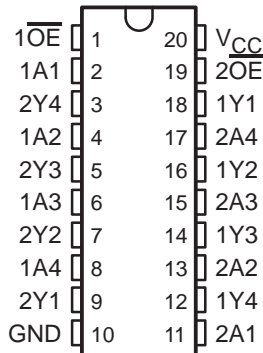


SN54HC244, SN74HC244 OCTAL BUFFERS AND LINE DRIVERS WITH 3-STATE OUTPUTS

SCLS130D – DECEMBER 1982 – REVISED AUGUST 2003

- Wide Operating Voltage Range of 2 V to 6 V
- High-Current Outputs Drive Up To 15 LSTTL Loads
- 3-State Outputs Drive Bus Lines or Buffer Memory Address Registers
- Low Power Consumption, 80- μ A Max I_{CC}
- Typical $t_{pd} = 11$ ns
- ± 6 -mA Output Drive at 5 V
- Low Input Current of 1 μ A Max

SN54HC244 . . . J OR W PACKAGE
SN74HC244 . . . DB, DW, N, NS, OR PW PACKAGE
(TOP VIEW)



SN54HC244 . . . FK PACKAGE
(TOP VIEW)



description/ordering information

These octal buffers and line drivers are designed specifically to improve both the performance and density of 3-state memory address drivers, clock drivers, and bus-oriented receivers and transmitters. The 'HC244 devices are organized as two 4-bit buffers/drivers with separate output-enable (\overline{OE}) inputs. When \overline{OE} is low, the device passes noninverted data from the A inputs to the Y outputs. When \overline{OE} is high, the outputs are in the high-impedance state.

ORDERING INFORMATION

T_A	PACKAGE†		ORDERABLE PART NUMBER	TOP-SIDE MARKING
-40°C to 85°C	PDIP – N	Tube of 20	SN74HC244N	SN74HC244N
	SOIC – DW	Tube of 25	SN74HC244DW	HC244
		Reel of 2000	SN74HC244DWR	
	SOP – NS	Reel of 2000	SN74HC244NSR	HC244
	SSOP – DB	Reel of 2000	SN74HC244DBR	HC244
	TSSOP – PW	Tube of 70	SN74HC244PW	HC244
Reel of 2000		SN74HC244PWR		
Reel of 250		SN74HC244PWT		
-55°C to 125°C	CDIP – J	Tube of 20	SNJ54HC244J	SNJ54HC244J
	CFP – W	Tube of 85	SNJ54HC244W	SNJ54HC244W
	LCCC – FK	Tube of 55	SNJ54HC244FK	SNJ54HC244FK

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



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.

SN54HC244, SN74HC244 OCTAL BUFFERS AND LINE DRIVERS WITH 3-STATE OUTPUTS

SCLS130D – DECEMBER 1982 – REVISED AUGUST 2003

FUNCTION TABLE
(each buffer/driver)

INPUTS		OUTPUT
\overline{OE}	A	Y
L	H	H
L	L	L
H	X	Z

logic diagram (positive logic)



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

Supply voltage range, V_{CC}	–0.5 V to 7 V
Input clamp current, I_{IK} ($V_I < 0$ or $V_I > V_{CC}$) (see Note 1)	±20 mA
Output clamp current, I_{OK} ($V_O < 0$ or $V_O > V_{CC}$) (see Note 1)	±20 mA
Continuous output current, I_O ($V_O = 0$ to V_{CC})	±35 mA
Continuous current through V_{CC} or GND	±70 mA
Package thermal impedance, θ_{JA} (see Note 2):	
DB package	70°C/W
DW package	58°C/W
N package	69°C/W
NS package	60°C/W
PW package	83°C/W
Storage temperature range, T_{stg}	–65°C to 150°C

† Stresses beyond those listed under “absolute maximum ratings” may cause permanent damage to the device. These are stress ratings only, and functional operation of the device at these or any other conditions beyond those indicated under “recommended operating conditions” is not implied. Exposure to absolute-maximum-rated conditions for extended periods may affect device reliability.

- NOTES: 1. The input and output voltage ratings may be exceeded if the input and output current ratings are observed.
2. The package thermal impedance is calculated in accordance with JESD 51-7.

SN54HC244, SN74HC244 OCTAL BUFFERS AND LINE DRIVERS WITH 3-STATE OUTPUTS

SCLS130D – DECEMBER 1982 – REVISED AUGUST 2003

recommended operating conditions (see Note 3)

		SN54HC244			SN74HC244			UNIT
		MIN	NOM	MAX	MIN	NOM	MAX	
V _{CC}	Supply voltage	2	5	6	2	5	6	V
V _{IH}	High-level input voltage	V _{CC} = 2 V		1.5	1.5		V	
		V _{CC} = 4.5 V		3.15	3.15			
		V _{CC} = 6 V		4.2	4.2			
V _{IL}	Low-level input voltage	V _{CC} = 2 V			0.5		0.5	V
		V _{CC} = 4.5 V			1.35		1.35	
		V _{CC} = 6 V			1.8		1.8	
V _I	Input voltage	0		V _{CC}	0		V _{CC}	V
V _O	Output voltage	0		V _{CC}	0		V _{CC}	V
Δt/Δv	Input transition rise/fall time	V _{CC} = 2 V			1000		1000	ns
		V _{CC} = 4.5 V			500		500	
		V _{CC} = 6 V			400		400	
T _A	Operating free-air temperature	-55		125	-40		85	°C

NOTE 3: All unused inputs of the device must be held at V_{CC} or GND to ensure proper device operation. Refer to the TI application report, *Implications of Slow or Floating CMOS Inputs*, literature number SCBA004.

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

PARAMETER	TEST CONDITIONS		V _{CC}	T _A = 25°C		SN54HC244		SN74HC244		UNIT		
				MIN	TYP	MAX	MIN	MAX	MIN		MAX	
V _{OH}	V _I = V _{IH} or V _{IL}	I _{OH} = -20 μA	2 V	1.9	1.998		1.9		1.9	V		
			4.5 V	4.4	4.499		4.4		4.4			
			6 V	5.9	5.999		5.9		5.9			
		I _{OH} = -6 mA	4.5 V	3.98	4.3		3.7		3.84			
		I _{OH} = -7.8 mA	6 V	5.48	5.8		5.2		5.34			
V _{OL}	V _I = V _{IH} or V _{IL}	I _{OL} = 20 μA	2 V		0.002	0.1		0.1		V		
			4.5 V		0.001	0.1		0.1			0.1	
			6 V		0.001	0.1		0.1			0.1	
		I _{OL} = 6 mA	4.5 V		0.17	0.26		0.4			0.33	
		I _{OL} = 7.8 mA	6 V		0.15	0.26		0.4			0.33	
I _I	V _I = V _{CC} or 0		6 V		±0.1	±100		±1000		±1000	nA	
I _{OZ}	V _O = V _{CC} or 0, V _I = V _{IH} or V _{IL}		6 V		±0.01	±0.5		±10		±5	μA	
I _{CC}	V _I = V _{CC} or 0, I _O = 0		6 V					8		160	80	μA
C _i			2 V to 6 V		3	10		10		10	10	pF

SN54HC244, SN74HC244
OCTAL BUFFERS AND LINE DRIVERS
WITH 3-STATE OUTPUTS

SCLS130D – DECEMBER 1982 – REVISED AUGUST 2003

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

PARAMETER	FROM (INPUT)	TO (OUTPUT)	V _{CC}	T _A = 25°C			SN54HC244		SN74HC244		UNIT
				MIN	TYP	MAX	MIN	MAX	MIN	MAX	
t _{pd}	A	Y	2 V		40	115		170		145	ns
			4.5 V		13	23		34		29	
			6 V		11	20		29		25	
t _{en}	\overline{OE}	Y	2 V		75	150		225		190	ns
			4.5 V		15	30		45		38	
			6 V		13	26		38		32	
t _{dis}	\overline{OE}	Y	2 V		75	150		225		190	ns
			4.5 V		15	30		45		38	
			6 V		13	26		38		32	
t _t		Y	2 V		28	60		90		75	ns
			4.5 V		8	12		18		15	
			6 V		6	10		15		13	

switching characteristics over recommended operating free-air temperature range, $C_L = 150$ pF (unless otherwise noted) (see Figure 1)

PARAMETER	FROM (INPUT)	TO (OUTPUT)	V _{CC}	T _A = 25°C			SN54HC244		SN74HC244		UNIT
				MIN	TYP	MAX	MIN	MAX	MIN	MAX	
t _{pd}	A	Y	2 V		56	165		245		210	ns
			4.5 V		18	33		49		42	
			6 V		15	28		42		35	
t _{en}	\overline{OE}	Y	2 V		100	200		300		250	ns
			4.5 V		20	40		60		50	
			6 V		17	34		51		43	
t _t		Y	2 V		45	210		315		265	ns
			4.5 V		17	42		63		53	
			6 V		13	36		53		45	

operating characteristics, T_A = 25°C

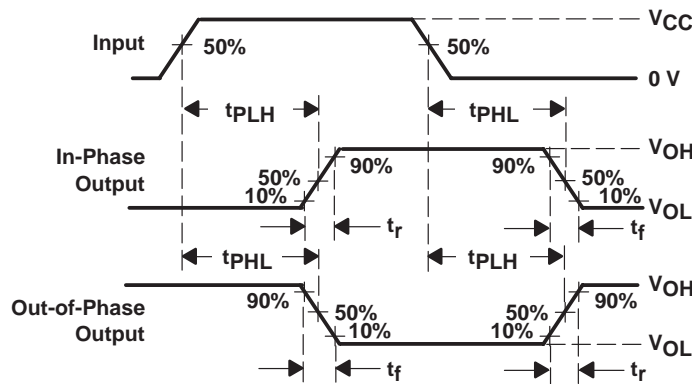
PARAMETER	TEST CONDITIONS	TYP	UNIT
C _{pd} Power dissipation capacitance per buffer/driver	No load	35	pF



PARAMETER MEASUREMENT INFORMATION



PARAMETER	R_L	C_L	S1	S2
t_{en}	1 k Ω	50 pF or 150 pF	Open	Closed
			Closed	Open
t_{dis}	1 k Ω	50 pF	Open	Closed
			Closed	Open
t_{pd} or t_t	—	50 pF or 150 pF	Open	Open



- NOTES:
- A. C_L includes probe and test-fixture capacitance.
 - B. Waveform 1 is for an output with internal conditions such that the output is low except when disabled by the output control. Waveform 2 is for an output with internal conditions such that the output is high except when disabled by the output control.
 - C. Phase relationships between waveforms were chosen arbitrarily. All input pulses are supplied by generators having the following characteristics: PRR \leq 1 MHz, $Z_O = 50 \Omega$, $t_r = 6$ ns, $t_f = 6$ ns.
 - D. The outputs are measured one at a time with one input transition per measurement.
 - E. t_{PLZ} and t_{PHZ} are the same as t_{dis} .
 - F. t_{PZL} and t_{PZH} are the same as t_{en} .
 - G. t_{PLH} and t_{PHL} are the same as t_{pd} .

Figure 1. Load Circuit and Voltage Waveforms

PACKAGING INFORMATION

Orderable Device	Status ⁽¹⁾	Package Type	Package Drawing	Pins	Package Qty	Eco Plan ⁽²⁾	Lead/Ball Finish	MSL Peak Temp ⁽³⁾
5962-8409601VRA	ACTIVE	CDIP	J	20	1	TBD	Call TI	Level-NC-NC-NC
5962-8409601VSA	ACTIVE	CFP	W	20	1	TBD	Call TI	Level-NC-NC-NC
84096012A	ACTIVE	LCCC	FK	20	1	TBD	Call TI	Level-NC-NC-NC
8409601RA	ACTIVE	CDIP	J	20	1	TBD	Call TI	Level-NC-NC-NC
8409601SA	ACTIVE	CFP	W	20	1	TBD	Call TI	Level-NC-NC-NC
JM38510/65705B2A	ACTIVE	LCCC	FK	20	1	TBD	Call TI	Level-NC-NC-NC
JM38510/65705BRA	ACTIVE	CDIP	J	20	1	TBD	Call TI	Level-NC-NC-NC
JM38510/65705BSA	ACTIVE	CFP	W	20	1	TBD	Call TI	Level-NC-NC-NC
SN54HC244J	ACTIVE	CDIP	J	20	1	TBD	Call TI	Level-NC-NC-NC
SN74HC244ADBLE	OBSOLETE	SSOP	DB	20		TBD	Call TI	Call TI
SN74HC244APWLE	OBSOLETE	TSSOP	PW	20		TBD	Call TI	Call TI
SN74HC244DBLE	OBSOLETE	SSOP	DB	20		TBD	Call TI	Call TI
SN74HC244DBR	ACTIVE	SSOP	DB	20	2000	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM
SN74HC244DBRE4	ACTIVE	SSOP	DB	20	2000	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM
SN74HC244DW	ACTIVE	SOIC	DW	20	25	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM
SN74HC244DWE4	ACTIVE	SOIC	DW	20	25	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM
SN74HC244DWG4	ACTIVE	SOIC	DW	20	25	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM
SN74HC244DWR	ACTIVE	SOIC	DW	20	2000	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM
SN74HC244DWRE4	ACTIVE	SOIC	DW	20	2000	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM
SN74HC244DWRG4	ACTIVE	SOIC	DW	20	2000	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM
SN74HC244N	ACTIVE	PDIP	N	20	20	Pb-Free (RoHS)	CU NIPDAU	Level-NC-NC-NC
SN74HC244N3	OBSOLETE	PDIP	N	20		TBD	Call TI	Call TI
SN74HC244NE4	ACTIVE	PDIP	N	20	20	Pb-Free (RoHS)	CU NIPDAU	Level-NC-NC-NC
SN74HC244NSG4	ACTIVE	SO	NS	20	40	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM
SN74HC244NSR	ACTIVE	SO	NS	20	2000	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM
SN74HC244NSRE4	ACTIVE	SO	NS	20	2000	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM
SN74HC244NSRG4	ACTIVE	SO	NS	20	2000	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM
SN74HC244PW	ACTIVE	TSSOP	PW	20	70	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM
SN74HC244PWE4	ACTIVE	TSSOP	PW	20	70	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM
SN74HC244PWLE	OBSOLETE	TSSOP	PW	20		TBD	Call TI	Call TI
SN74HC244PWR	ACTIVE	TSSOP	PW	20	2000	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM

Orderable Device	Status ⁽¹⁾	Package Type	Package Drawing	Pins	Package Qty	Eco Plan ⁽²⁾	Lead/Ball Finish	MSL Peak Temp ⁽³⁾
						no Sb/Br)		
SN74HC244PWRE4	ACTIVE	TSSOP	PW	20	2000	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM
SN74HC244PWT	ACTIVE	TSSOP	PW	20	250	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM
SN74HC244PWTE4	ACTIVE	TSSOP	PW	20	250	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM
SNJ54HC244FK	ACTIVE	LCCC	FK	20	1	TBD	Call TI	Level-NC-NC-NC
SNJ54HC244J	ACTIVE	CDIP	J	20	1	TBD	Call TI	Level-NC-NC-NC
SNJ54HC244W	ACTIVE	CFP	W	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 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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J (R-GDIP-T**)

14 LEADS SHOWN

CERAMIC DUAL IN-LINE PACKAGE



DIM \ PINS **	14	16	18	20
A	0.300 (7,62) BSC	0.300 (7,62) BSC	0.300 (7,62) BSC	0.300 (7,62) BSC
B MAX	0.785 (19,94)	.840 (21,34)	0.960 (24,38)	1.060 (26,92)
B MIN	—	—	—	—
C MAX	0.300 (7,62)	0.300 (7,62)	0.310 (7,87)	0.300 (7,62)
C MIN	0.245 (6,22)	0.245 (6,22)	0.220 (5,59)	0.245 (6,22)



4040083/F 03/03

- 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-F20)

CERAMIC DUAL FLATPACK



- 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 ceramic lid using glass frit.
 - D. Index point is provided on cap for terminal identification only.
 - E. Falls within Mil-Std 1835 GDFP2-F20

FK (S-CQCC-N**)

LEADLESS CERAMIC CHIP CARRIER

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. The terminals are gold plated.
 - E. Falls within JEDEC MS-004

N (R-PDIP-T**)

PLASTIC DUAL-IN-LINE PACKAGE

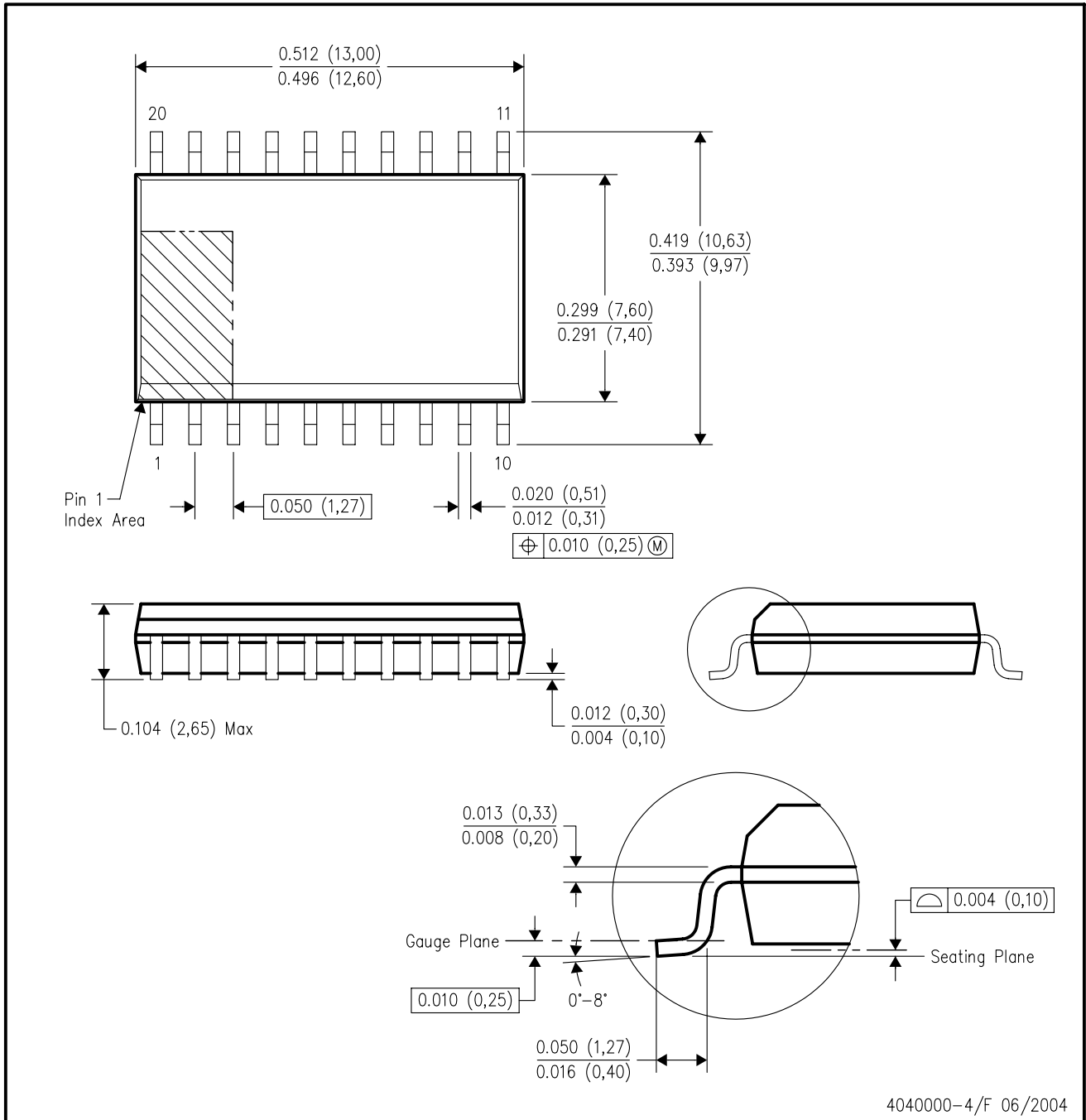
16 PINS SHOWN



- 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).
 - The 20 pin end lead shoulder width is a vendor option, either half or full width.

DW (R-PDSO-G20)

PLASTIC SMALL-OUTLINE PACKAGE



- NOTES:
- A. All linear dimensions are in inches (millimeters).
 - B. This drawing is subject to change without notice.
 - C. Body dimensions do not include mold flash or protrusion not to exceed 0.006 (0,15).
 - D. Falls within JEDEC MS-013 variation AC.

MECHANICAL DATA

NS (R-PDSO-G**)

PLASTIC SMALL-OUTLINE PACKAGE

14-PINS SHOWN



- NOTES:
- A. All linear dimensions are in millimeters.
 - B. This drawing is subject to change without notice.
 - C. Body dimensions do not include mold flash or protrusion, not to exceed 0,15.

DB (R-PDSO-G**)

PLASTIC SMALL-OUTLINE

28 PINS SHOWN



- NOTES: A. All linear dimensions are in millimeters.
 B. This drawing is subject to change without notice.
 C. Body dimensions do not include mold flash or protrusion not to exceed 0,15.
 D. Falls within JEDEC MO-150

4040065 /E 12/01

PW (R-PDSO-G**)

PLASTIC SMALL-OUTLINE PACKAGE

14 PINS SHOWN



4040064/F 01/97

- NOTES: A. All linear dimensions are in millimeters.
 B. This drawing is subject to change without notice.
 C. Body dimensions do not include mold flash or protrusion not to exceed 0,15.
 D. Falls within JEDEC MO-153

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View ROHS Compliant Devices

clear gif

SN74HC244, Status: ACTIVE

View RoHS Compliant Devices

Octal Buffers And Line Drivers With 3-State Outputs



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<input type="checkbox"/> Features	<input type="checkbox"/> Samples	<input type="checkbox"/> Technical Documents
<input type="checkbox"/> Quality & Pb-Free Data	<input type="checkbox"/> Pricing/Packaging	<input type="checkbox"/> Applications Notes
<input type="checkbox"/> Related Products	<input type="checkbox"/> Inventory	<input type="checkbox"/> Simulation Models
<input type="checkbox"/> Tools & Software	<input type="checkbox"/> Symbols/Footprints	<input type="checkbox"/> Reference Designs



Refine Your Selection

- Logic: Non-Inverting B
and Drivers

Support

- KnowledgeBase
- Contact Technical Supp
- TI Cross Reference
- Training
- Part Marking Lookup
- Part Number Nomenda

Datasheet



Download Datasheet

SN54HC244, SN74HC244 (Rev. D) (sn74hc244.pdf, 534 KB)
13 Aug 2003 [Download](#)

	SN54HC244	SN74HC244	SN74HC244-EP
Voltage Nodes(V)	6, 5, 2	6, 4.5, 2	6, 4.5, 2
Vcc range(V)	2.0 to 6.0	2.0 to 6.0	2.0 to 6.0
Logic	True	True	True
Input Level	CMOS	CMOS	CMOS
Output Level	CMOS	CMOS	CMOS
Output Drive(mA)		-7.8/7.8	-7.8/7.8
No. of Gates			10
No. of Outputs	8	8	8
tpd max(ns)		29	34
Static Current		0.08	0.16
	Samples	Samples	Samples
	Inventory	Inventory	Inventory

Product Information

Features Save this to your personal library

- Wide Operating Voltage Range of 2 V to 6 V
- High-Current Outputs Drive Up To 15 LSTTL Loads
- 3-State Outputs Drive Bus Lines or Buffer Memory Address Registers
- Low Power Consumption, 80-µA Max I_{CC}
- Typical t_{pd} = 11 ns
- ±6-mA Output Drive at 5 V
- Low Input Current of 1 µA Max

Description

These octal buffers and line drivers are designed specifically to improve both the performance and density of 3-state memory address drivers, clock drivers, and bus-oriented receivers and transmitters. The 'HC244 devices are organized as two 4-bit buffers/drivers with separate output-enable (OE) inputs. When OE is low, the device passes noninverted data from the A inputs to the Y outputs. When OE is high, the outputs are in the high-impedance state.

Pricing/Packaging/CAD Design Tools/Samples


			Price	Packaging			CAD Design Tools	Samples
Device	Status	Temp (°C)	Budget Price (\$US) QTY	Industry Standard (TI Pkg) Pins	Top Side Marking	Standard Pack Quantity	Footprints	Samples
SN74HC244ADBLE	OBSOLETE	-40 to 85		SSOP (DB) 20	View		<input type="checkbox"/>	Not Available
SN74HC244APWLE	OBSOLETE	-40 to 85		TSSOP (PW) 20	View		<input type="checkbox"/>	Not Available
SN74HC244DBLE	OBSOLETE	-40 to 85		SSOP (DB) 20	View		<input type="checkbox"/>	Not Available
SN74HC244DBR	ACTIVE	-40 to 85	0.33 1KU	SSOP (DB) 20	View	2000	<input type="checkbox"/>	Contact TI Distributor or Sales Office
SN74HC244DBRE4	ACTIVE	-40 to 85	0.33 1KU	SSOP (DB) 20	View	2000	<input type="checkbox"/>	Request Free Samples
SN74HC244DW	ACTIVE	-40 to 85	0.33 1KU	SOIC (DW) 20	View	25	<input type="checkbox"/>	Purchase Samples
SN74HC244DWE4	ACTIVE	-40 to 85	0.33 1KU	SOIC (DW) 20	View	25	<input type="checkbox"/>	Purchase Samples
SN74HC244DWG4	ACTIVE	-40 to 85	0.37 1KU	SOIC (DW) 20	View	25	<input type="checkbox"/>	Purchase Samples
SN74HC244DWR	ACTIVE	-40 to 85	0.33 1KU	SOIC (DW) 20	View	2000	<input type="checkbox"/>	Contact TI Distributor or Sales Office
SN74HC244DWRE4	ACTIVE	-40 to 85	0.33 1KU	SOIC (DW) 20	View	2000	<input type="checkbox"/>	Request Free Samples
SN74HC244DWRG4	ACTIVE	-40 to 85	0.37 1KU	SOIC (DW) 20	View	2000	<input type="checkbox"/>	Purchase Samples
SN74HC244N	ACTIVE	-40 to 85	0.36 1KU	PDIP (N) 20	View	20	<input type="checkbox"/>	Contact TI Distributor or Sales Office
SN74HC244N3	OBSOLETE	-40 to 85		PDIP (N) 20	View		<input type="checkbox"/>	Not Available
SN74HC244NE4	ACTIVE	-40 to 85	0.36 1KU	PDIP (N) 20	View	20	<input type="checkbox"/>	Request Free Samples
SN74HC244NSG4	ACTIVE		0.37 1KU	SO (NS) 20	View	40	<input type="checkbox"/>	Purchase Samples
SN74HC244NSR	ACTIVE	-40 to 85	0.33 1KU	SO (NS) 20	View	2000	<input type="checkbox"/>	Contact TI Distributor or Sales Office
SN74HC244NSRE4	ACTIVE	-40 to 85	0.33 1KU	SO (NS) 20	View	2000	<input type="checkbox"/>	Purchase Samples
SN74HC244NSRG4	ACTIVE	-40 to 85	0.37 1KU	SO (NS) 20	View	2000	<input type="checkbox"/>	Purchase Samples
SN74HC244PW	ACTIVE	-40 to 85	0.33 1KU	TSSOP (PW) 20	View	70	<input type="checkbox"/>	Purchase Samples
SN74HC244PWE4	ACTIVE	-40 to 85	0.33 1KU	TSSOP (PW) 20	View	70	<input type="checkbox"/>	Purchase Samples
SN74HC244PWLE	OBSOLETE	-40 to 85		TSSOP (PW) 20	View		<input type="checkbox"/>	Not Available
SN74HC244PWR	ACTIVE	-40 to 85	0.33 1KU	TSSOP (PW) 20	View	2000	<input type="checkbox"/>	Contact TI Distributor or Sales Office
SN74HC244PWRE4	ACTIVE	-40 to 85	0.33 1KU	TSSOP (PW) 20	View	2000	<input type="checkbox"/>	Request Free Samples
SN74HC244PWT	ACTIVE	-40 to 85	0.66 1KU	TSSOP (PW) 20	View	250	<input type="checkbox"/>	Purchase Samples
SN74HC244PWTE4	ACTIVE	-40 to 85	0.66 1KU	TSSOP (PW) 20	View	250	<input type="checkbox"/>	Purchase Samples

Inventory

	TI Inventory Status			Reported Distributor Inventory			
SN74HC244DBR	In Stock	In Progress QTY Date	Lead Time	Region	Company	In Stock	Purchase
	As of 9:11 AM GMT, 29 Nov 2005			As of 9:11 AM GMT, 29 Nov 2005			

View all Distributors

Choose a Region



	0*	165 22 Dec	10 Weeks	Americas	Arrow	>1k	<input type="text"/>
		>10k 29 Dec		Europe	Avnet-SILICA	680	<input type="text"/>
SN74HC244DBRE4	As of 9:11 AM GMT, 29 Nov 2005			As of 9:11 AM GMT, 29 Nov 2005			
	In Stock	In Progress QTY Date	Lead Time	Region	Company	In Stock	Purchase
	0*	165 22 Dec	10 Weeks	None Reported View Distributors			
		>10k 29 Dec					
SN74HC244DW	As of 9:11 AM GMT, 29 Nov 2005			As of 9:11 AM GMT, 29 Nov 2005			
	In Stock	In Progress QTY Date	Lead Time	Region	Company	In Stock	Purchase
	0*	>10k 30 Jan	9 Weeks	Americas	Arrow	>1k	<input type="text"/>
					Avnet	>1k	<input type="text"/>
					Newark InOne	458	<input type="text"/>
				Europe	Arrow Northern Europe	>1k	<input type="text"/>
					Arrow Southern Europe	>1k	<input type="text"/>
					Avnet-SILICA	>1k	<input type="text"/>
					EBV Elektronik	>1k	<input type="text"/>
SN74HC244DWE4	As of 9:11 AM GMT, 29 Nov 2005			As of 9:11 AM GMT, 29 Nov 2005			
	In Stock	In Progress QTY Date	Lead Time	Region	Company	In Stock	Purchase
	0*	>10k 30 Jan	9 Weeks	None Reported View Distributors			
SN74HC244DWG4	As of 9:11 AM GMT, 29 Nov 2005			As of 9:11 AM GMT, 29 Nov 2005			
	In Stock	In Progress QTY Date	Lead Time	Region	Company	In Stock	Purchase
	0*	>10k 30 Jan	9 Weeks	None Reported View Distributors			
SN74HC244DWR	As of 9:11 AM GMT, 29 Nov 2005			As of 9:11 AM GMT, 29 Nov 2005			
	In Stock	In Progress QTY Date	Lead Time	Region	Company	In Stock	Purchase
	0*	>10k 19 Dec	8 Weeks	Americas	Avnet	>1k	<input type="text"/>
					DigiKey	>1k	<input type="text"/>
				Europe	Abacus Polar	>1k	<input type="text"/>
					Arrow Northern Europe	>1k	<input type="text"/>
					Avnet-SILICA	>1k	<input type="text"/>
					EBV Elektronik	>1k	<input type="text"/>
					Rutronik	>1k	<input type="text"/>
					Spoerle	>1k	<input type="text"/>
SN74HC244DWRE4	As of 9:11 AM GMT, 29 Nov 2005			As of 9:11 AM GMT, 29 Nov 2005			
	In Stock	In Progress QTY Date	Lead Time	Region	Company	In Stock	Purchase
	0*	>10k 19 Dec	8 Weeks	None Reported View Distributors			
SN74HC244DWRG4	As of 9:11 AM GMT, 29 Nov 2005			As of 9:11 AM GMT, 29 Nov 2005			
	In Stock	In Progress QTY Date	Lead Time	Region	Company	In Stock	Purchase
	0*	>10k 30 Jan	9 Weeks	None Reported View Distributors			
SN74HC244N	As of 9:11 AM GMT, 29 Nov 2005			As of 9:11 AM GMT, 29 Nov 2005			

	In Stock	In Progress QTY Date	Lead Time	Region	Company	In Stock	Purchase	
	0*	>10k 5 Jan	10 Weeks	Americas	Arrow	>1k	<input type="text"/>	
					Avnet	>1k	<input type="text"/>	
					DigiKey	>1k	<input type="text"/>	
					Newark InOne	>1k	<input type="text"/>	
					Europe	Abacus Polar	>1k	<input type="text"/>
						Arrow Northern Europe	>1k	<input type="text"/>
						Arrow Southern Europe	>1k	<input type="text"/>
						Avnet-SILICA	>1k	<input type="text"/>
						EBV Elektronik	>1k	<input type="text"/>

SN74HC244NE4 As of 9:11 AM GMT, 29 Nov 2005 As of 9:11 AM GMT, 29 Nov 2005

	In Stock	In Progress QTY Date	Lead Time	Region	Company	In Stock	Purchase
	0*	>10k 5 Jan	10 Weeks	None Reported View Distributors			

SN74HC244NSG4 As of 9:11 AM GMT, 29 Nov 2005 As of 9:11 AM GMT, 29 Nov 2005

	In Stock	In Progress QTY Date	Lead Time	Region	Company	In Stock	Purchase
	0*	165 19 Dec	8 Weeks	None Reported View Distributors			
		>10k 3 Jan					

SN74HC244NSR As of 9:11 AM GMT, 29 Nov 2005 As of 9:11 AM GMT, 29 Nov 2005

	In Stock	In Progress QTY Date	Lead Time	Region	Company	In Stock	Purchase
	2000*	165 16 Dec	8 Weeks	Americas	DigiKey	>1k	<input type="text"/>
		>10k 30 Dec					

SN74HC244NSRE4 As of 9:11 AM GMT, 29 Nov 2005 As of 9:11 AM GMT, 29 Nov 2005

	In Stock	In Progress QTY Date	Lead Time	Region	Company	In Stock	Purchase
	0*	165 16 Dec	8 Weeks	None Reported View Distributors			
		>10k 30 Dec					

SN74HC244NSRG4 As of 9:11 AM GMT, 29 Nov 2005 As of 9:11 AM GMT, 29 Nov 2005

	In Stock	In Progress QTY Date	Lead Time	Region	Company	In Stock	Purchase
	0*	165 19 Dec	8 Weeks	None Reported View Distributors			
		>10k 3 Jan					

SN74HC244PW As of 9:11 AM GMT, 29 Nov 2005 As of 9:11 AM GMT, 29 Nov 2005

	In Stock	In Progress QTY Date	Lead Time	Region	Company	In Stock	Purchase
	0*	630 12 Dec	12 Weeks	None Reported View Distributors			
		>10k 3 Apr					

SN74HC244PWE4 As of 9:11 AM GMT, 29 Nov 2005 As of 9:11 AM GMT, 29 Nov 2005

	In Stock	In Progress QTY Date	Lead Time	Region	Company	In Stock	Purchase
	0*	630 12 Dec	12 Weeks	None Reported View Distributors			
		>10k 3 Apr					

As of 9:11 AM GMT, 29 Nov 2005				As of 9:11 AM GMT, 29 Nov 2005			
	In Stock	In Progress QTY Date	Lead Time	Region	Company	In Stock	Purchase
SN74HC244PWR	0*	>10k 3 Apr	16 Weeks	Americas	DigiKey	>1k	<input type="text"/>
				Europe	Arrow Southern Europe	>1k	<input type="text"/>
					Rutronik	>1k	<input type="text"/>
As of 9:11 AM GMT, 29 Nov 2005				As of 9:11 AM GMT, 29 Nov 2005			
	In Stock	In Progress QTY Date	Lead Time	Region	Company	In Stock	Purchase
SN74HC244PWRE4	0*	>10k 3 Apr	16 Weeks	None Reported View Distributors			
As of 9:11 AM GMT, 29 Nov 2005				As of 9:11 AM GMT, 29 Nov 2005			
	In Stock	In Progress QTY Date	Lead Time	Region	Company	In Stock	Purchase
SN74HC244PWT	0*	>10k 3 Apr	16 Weeks	None Reported View Distributors			
As of 9:11 AM GMT, 29 Nov 2005				As of 9:11 AM GMT, 29 Nov 2005			
	In Stock	In Progress QTY Date	Lead Time	Region	Company	In Stock	Purchase
SN74HC244PWTE4	0*	>10k 3 Apr	16 Weeks	None Reported View Distributors			

* Our information is updated daily, so please check back with us soon if this does not meet your needs. You may also contact your [TI Authorized Distributor](#), including those [listed above](#), for real time stock information.

** Lead time information is not available at this time. However, our information is updated daily so please check back with us soon. Please contact your preferred [TI Authorized Distributor](#) for additional information.

Quality & Lead (Pb)-Free Data						
	Product Content				MTBF/FIT Rate	
Device	Eco Plan*	Lead/Ball Finish	MSL Rating/Peak Reflow	Details	Details	
SN74HC244DBR <input type="checkbox"/>	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM	View	View	
SN74HC244DBRE4 <input type="checkbox"/>	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM	View	View	
SN74HC244DW <input type="checkbox"/>	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM	View	View	
SN74HC244DWE4 <input type="checkbox"/>	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM	View	View	
SN74HC244DWG4 <input type="checkbox"/>	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM	View	View	
SN74HC244DWR <input type="checkbox"/>	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM	View	View	
SN74HC244DWRE4 <input type="checkbox"/>	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM	View	View	
SN74HC244DWRG4 <input type="checkbox"/>	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM	View	View	
SN74HC244N <input type="checkbox"/>	Pb-Free (RoHS)	CU NIPDAU	Level-NC-NC-NC	View	View	
SN74HC244NE4 <input type="checkbox"/>	Pb-Free (RoHS)	CU NIPDAU	Level-NC-NC-NC	View	View	
SN74HC244NSG4 <input type="checkbox"/>	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM	View	View	
SN74HC244NSR <input type="checkbox"/>	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM	View	View	
SN74HC244NSRE4 <input type="checkbox"/>	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM	View	View	
SN74HC244NSRG4 <input type="checkbox"/>	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM	View	View	
SN74HC244PW <input type="checkbox"/>	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM	View	View	
SN74HC244PWE4 <input type="checkbox"/>	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM	View	View	
SN74HC244PWR <input type="checkbox"/>	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM	View	View	
SN74HC244PWRE4 <input type="checkbox"/>	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM	View	View	
SN74HC244PWT <input type="checkbox"/>	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM	View	View	
SN74HC244PWTE4 <input type="checkbox"/>	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM	View	View	

* The planned eco-friendly classification: Pb-Free (RoHS) or Green (RoHS & no Sb/Br) - please click on the Product Content Details "View" link in the table above for the latest availability information and additional product content details.

If the information you are requesting is not available online at this time, contact one of our [Product Information Centers](#) regarding the availability of this information.

Technical Documents

Datasheets

Keep track of what's new

SN54HC244, SN74HC244 (Rev. D) (sn74hc244.pdf, 534 KB)

13 Aug 2003 [Download](#)

Application Notes

Simultaneous-Switching Performance of TI Logic Devices (Rev. B) (szza038b.htm, 9 KB)

23 Feb 2005 [Abstract](#)

Semiconductor Packing Material Electrostatic Discharge (ESD) Protection (szza047.htm, 9 KB)

08 Jul 2004 [Abstract](#)

Shelf-Life Evaluation of Lead-Free Component Finishes (szza046.htm, 9 KB)

24 May 2004 [Abstract](#)

Understanding and Interpreting Standard-Logic Data Sheets (Rev. B) (szza036b.htm, 8 KB)

28 May 2003 [Abstract](#)

TI IBIS File Creation, Validation, and Distribution Processes (szza034.htm, 9 KB)

29 Aug 2002 [Abstract](#)

Selecting the Right Texas Instruments Signal Switch (szza030.htm, 9 KB)

07 Sep 2001 [Abstract](#)

Implications of Slow or Floating CMOS Inputs (Rev. C) (scba004c.htm, 9 KB)

01 Feb 1998 [Abstract](#)

CMOS Power Consumption and CPD Calculation (Rev. B) (scaa035b.htm, 9 KB)

01 Jun 1997 [Abstract](#)

Designing With Logic (Rev. C) (sdya009c.htm, 9 KB)

01 Jun 1997 [Abstract](#)

Live Insertion (sdya012.htm, 9 KB)

01 Oct 1996 [Abstract](#)

Input and Output Characteristics of Digital Integrated Circuits (sdya010.htm, 9 KB)

01 Oct 1996 [Abstract](#)

SN54/74HCT CMOS Logic Family Applications and Restrictions (scla011.htm, 9 KB)

01 May 1996 [Abstract](#)

Using High Speed CMOS and Advanced CMOS in Systems With Multiple Vcc (scla008.htm, 9 KB)

01 Apr 1996 [Abstract](#)

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User Guides

Signal Switch Data Book (Rev. A) (scdd003a.pdf, 19732 KB)

14 Nov 2003 [Download](#)

LOGIC Pocket Data Book (scyd013.pdf, 4835 KB)

05 Dec 2002 [Download](#)

Simulation Models

IBIS Model

IBIS Model of SN74HC244 (schm004.ibs, 169 KB)

09 Aug 2004 [ibis](#) / [zip](#)

More Literature

Logic Selection Guide 2005 (Rev. X) (sdyu001x.pdf, 6909 KB)

15 Mar 2005 [Download](#)

Military Semiconductors Selection Guide 2004-2005 (Rev. D) (sgyc003d.pdf, 964 KB)

10 Aug 2004 [Download](#)

SN74HC4851/HC4852 Product Clip (Rev. B) (scyb019b.pdf, 501 KB)

11 May 2004 [Download](#)

Logic Cross-Reference (Rev. A) (scyb017a.pdf, 2938 KB)

07 Oct 2003 [Download](#)

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