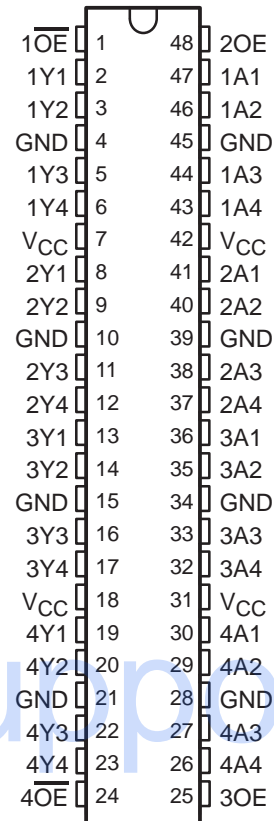


# SN54ABT16241A, SN74ABT16241A 16-BIT BUFFERS/DRIVERS WITH 3-STATE OUTPUTS

SCBS096G – FEBRUARY 1991 – REVISED OCTOBER 1998

- Members of the Texas Instruments *Widebus™* Family
- State-of-the-Art *EPIC-II B™* BiCMOS Design Significantly Reduces Power Dissipation
- Typical  $V_{OLP}$  (Output Ground Bounce) < 1 V at  $V_{CC} = 5$  V,  $T_A = 25^\circ\text{C}$
- Distributed  $V_{CC}$  and GND Pin Configuration Minimizes High-Speed Switching Noise
- Flow-Through Architecture Optimizes PCB Layout
- High-Drive Outputs ( $-32\text{-mA } I_{OH}$ ,  $64\text{-mA } I_{OL}$ )
- Latch-Up Performance Exceeds 500 mA Per JESD 17
- ESD Protection Exceeds 2000 V Per MIL-STD-883, Method 3015; Exceeds 200 V Using Machine Model ( $C = 200$  pF,  $R = 0$ )
- Package Options Include Plastic 300-mil Shrink Small-Outline (DL), Thin Shrink Small-Outline (DGG), and Thin Very Small-Outline (DGV) Packages and 380-mil Fine-Pitch Ceramic Flat (WD) Package Using 25-mil Center-to-Center Spacings

SN54ABT16241A . . . WD PACKAGE  
SN74ABT16241A . . . DGG, DGV, OR DL PACKAGE  
(TOP VIEW)



## description

The 'ABT16241A devices are 16-bit buffers and line drivers designed specifically to improve both the performance and density of 3-state memory address drivers, clock drivers, and bus-oriented receivers and transmitters.

These devices can be used as four 4-bit buffers, two 8-bit buffers, or one 16-bit buffer. These devices provide true outputs and complementary output-enable (OE and  $\overline{OE}$ ) inputs.

To ensure the high-impedance state during power up or power down,  $\overline{OE}$  should be tied to  $V_{CC}$  through a pullup resistor; the minimum value of the resistor is determined by the current-sinking capability of the driver. OE should be tied to GND through a pulldown resistor; the minimum value of the resistor is determined by the current-sourcing capability of the driver.

The SN54ABT16241A is characterized for operation over the full military temperature range of  $-55^\circ\text{C}$  to  $125^\circ\text{C}$ . The SN74ABT16241A is characterized for operation from  $-40^\circ\text{C}$  to  $85^\circ\text{C}$ .



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.

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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  
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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.

# SN54ABT16241A, SN74ABT16241A

## 16-BIT BUFFERS/DRIVERS

### WITH 3-STATE OUTPUTS

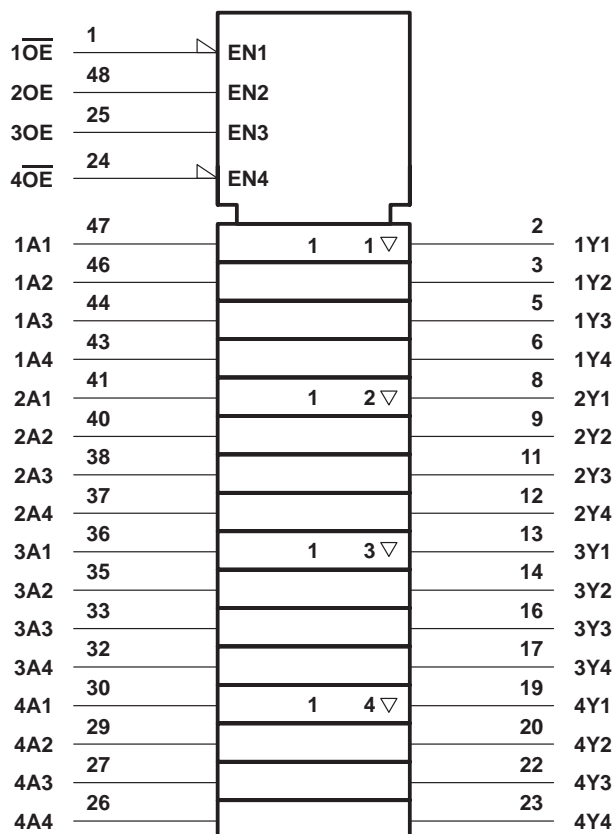
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#### FUNCTION TABLES

INPUTS		OUTPUTS
1OE, 4OE	1A, 4A	1Y, 4Y
L	H	H
L	L	L
H	X	Z

INPUTS		OUTPUTS
2OE, 3OE	2A, 3A	2Y, 3Y
H	H	H
H	L	L
L	X	Z

#### logic symbol†



† This symbol is in accordance with ANSI/IEEE Std 91-1984 and IEC Publication 617-12.



# SN54ABT16241A, SN74ABT16241A

## 16-BIT BUFFERS/DRIVERS

### WITH 3-STATE OUTPUTS

SCBS096G – FEBRUARY 1991 – REVISED OCTOBER 1998

#### recommended operating conditions (see Note 3)

		SN54ABT16241A		SN74ABT16241A		UNIT
		MIN	MAX	MIN	MAX	
$V_{CC}$	Supply voltage	4.5	5.5	4.5	5.5	V
$V_{IH}$	High-level input voltage	2		2		V
$V_{IL}$	Low-level input voltage		0.8		0.8	V
$V_I$	Input voltage	0	$V_{CC}$	0	$V_{CC}$	V
$I_{OH}$	High-level output current		-24		-32	mA
$I_{OL}$	Low-level output current		48		64	mA
$\Delta t/\Delta v$	Input transition rise or fall rate	Outputs enabled		10	10	ns/V
$T_A$	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	$T_A = 25^\circ\text{C}$			SN54ABT16241A		SN74ABT16241A		UNIT	
		MIN	TYP†	MAX	MIN	MAX	MIN	MAX		
$V_{IK}$	$V_{CC} = 4.5\text{ V}$ , $I_I = -18\text{ mA}$			-1.2		-1.2		-1.2	V	
$V_{OH}$	$V_{CC} = 4.5\text{ V}$ , $I_{OH} = -3\text{ mA}$	2.5			2.5		2.5		V	
	$V_{CC} = 5\text{ V}$ , $I_{OH} = -3\text{ mA}$	3			3		3			
	$V_{CC} = 4.5\text{ V}$									
$V_{OL}$	$V_{CC} = 4.5\text{ V}$	$I_{OL} = 48\text{ mA}$		0.55		0.55			V	
		$I_{OL} = 64\text{ mA}$		0.55*			0.55			
$V_{hys}$			100					mV		
$I_I$	$V_{CC} = 5.5\text{ V}$ , $V_I = V_{CC}$ or GND			$\pm 1$		$\pm 1$		$\pm 1$	$\mu\text{A}$	
$I_{OZH}$	$V_{CC} = 5.5\text{ V}$ , $V_O = 2.7\text{ V}$			10		10		10	$\mu\text{A}$	
$I_{OZL}$	$V_{CC} = 5.5\text{ V}$ , $V_O = 0.5\text{ V}$			-10		-10		-10	$\mu\text{A}$	
$I_{off}$	$V_{CC} = 0$ , $V_I$ or $V_O \leq 4.5\text{ V}$			$\pm 100$				$\pm 100$	$\mu\text{A}$	
$I_{CEX}$	$V_{CC} = 5.5\text{ V}$ , $V_O = 5.5\text{ V}$	Outputs high		50		50		50	$\mu\text{A}$	
$I_{O\ddagger}$	$V_{CC} = 5.5\text{ V}$ , $V_O = 2.5\text{ V}$	-50	-100	-180	-50	-180	-50	-180	mA	
$I_{CC}$	$V_{CC} = 5.5\text{ V}$ , $I_O = 0$ , $V_I = V_{CC}$ or GND	Outputs high		3		3		3	mA	
		Outputs low		34		34		34		
		Outputs disabled		3		3		3		
$\Delta I_{CC}\S$	Data inputs	$V_{CC} = 5.5\text{ V}$ , One input at 3.4 V, Other inputs at $V_{CC}$ or GND	Outputs enabled		1		1.5		1	mA
			Outputs disabled		0.05		1		0.05	
	Control inputs	$V_{CC} = 5.5\text{ V}$ , One input at 3.4 V, Other inputs at $V_{CC}$ or GND		1.5		1.5		1.5		
$C_i$	$V_I = 2.5\text{ V}$ or $0.5\text{ V}$		3.5					pF		
$C_o$	$V_O = 2.5\text{ V}$ or $0.5\text{ V}$		7.5					pF		

\* On products compliant to MIL-PRF-38535, this parameter does not apply.

† All typical values are at  $V_{CC} = 5\text{ V}$ .

‡ Not more than one output should be tested at a time, and the duration of the test should not exceed one second.

§ This is the increase in supply current for each input that is at the specified TTL voltage level rather than  $V_{CC}$  or GND.



**SN54ABT16241A, SN74ABT16241A**  
**16-BIT BUFFERS/DRIVERS**  
**WITH 3-STATE OUTPUTS**

SCBS096G – FEBRUARY 1991 – REVISED OCTOBER 1998

switching characteristics over recommended ranges of supply voltage and operating free-air temperature,  $C_L = 50$  pF (unless otherwise noted) (see Figure 1)

PARAMETER	FROM (INPUT)	TO (OUTPUT)	SN54ABT16241A					UNIT
			$V_{CC} = 5$ V, $T_A = 25^\circ$ C			MIN	MAX	
			MIN	TYP	MAX			
$t_{PLH}$	A	Y	0.9	2.7	3.4	0.9	3.8	ns
$t_{PHL}$			0.9	2.7	3.9	0.9	4.6	
$t_{PZH}$	OE or $\overline{OE}$	Y	1.2	3.3	4.2	1.2	5.1	ns
$t_{PZL}$			1.3	3.4	5.9	1.3	7	
$t_{PHZ}$	OE or $\overline{OE}$	Y	1.5	4.1	5.5	1.5	7	ns
$t_{PLZ}$			1.7	3.6	5.1	1.7	5.7	

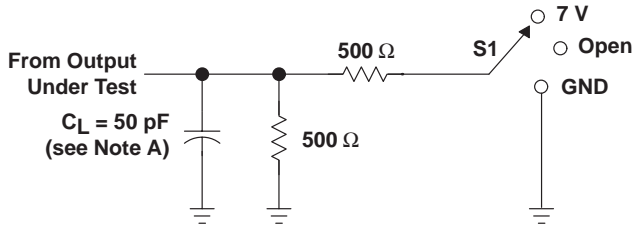
switching characteristics over recommended ranges of supply voltage and operating free-air temperature,  $C_L = 50$  pF (unless otherwise noted) (see Figure 1)

PARAMETER	FROM (INPUT)	TO (OUTPUT)	SN74ABT16241A					UNIT
			$V_{CC} = 5$ V, $T_A = 25^\circ$ C			MIN	MAX	
			MIN	TYP	MAX			
$t_{PLH}$	A	Y	1	2.7	3.4	1	3.7	ns
$t_{PHL}$			1	2.7	3.9	1	4.5	
$t_{PZH}$	OE or $\overline{OE}$	Y	1.2	3.3	4.2	1.2	5	ns
$t_{PZL}$			1.3	3.4	5.9	1.3	6.9	
$t_{PHZ}$	OE or $\overline{OE}$	Y	1.5	4.1	5.2	1.5	6.2	ns
$t_{PLZ}$			1.7	3.6	5.1	1.7	5.6	

**SN54ABT16241A, SN74ABT16241A**  
**16-BIT BUFFERS/DRIVERS**  
**WITH 3-STATE OUTPUTS**

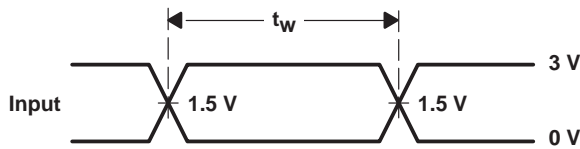
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**PARAMETER MEASUREMENT INFORMATION**

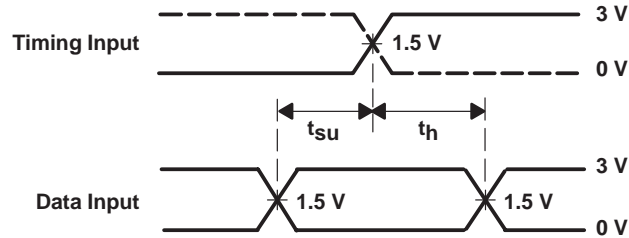


**LOAD CIRCUIT**

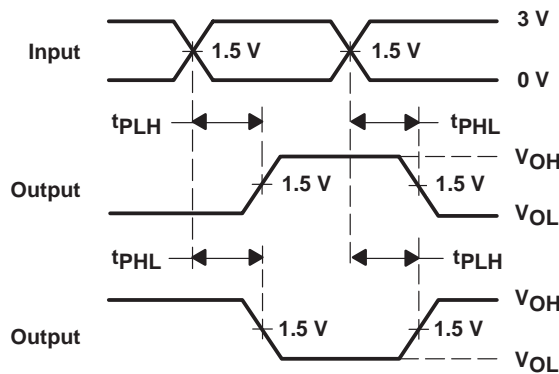
TEST	S1
$t_{PLH}/t_{PHL}$	Open
$t_{PLZ}/t_{PZL}$	7 V
$t_{PHZ}/t_{PZH}$	Open



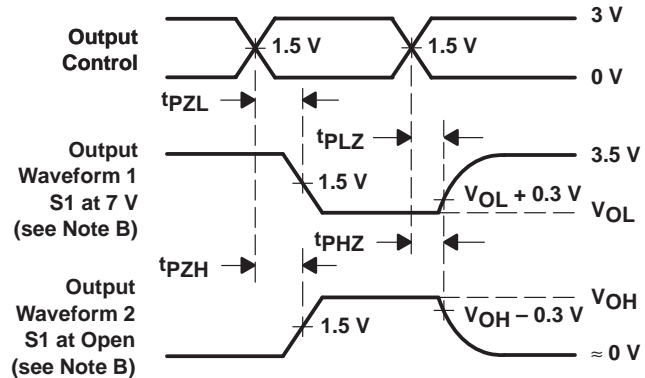
**VOLTAGE WAVEFORMS**  
**PULSE DURATION**



**VOLTAGE WAVEFORMS**  
**SETUP AND HOLD TIMES**



**VOLTAGE WAVEFORMS**  
**PROPAGATION DELAY TIMES**  
**INVERTING AND NONINVERTING OUTPUTS**



**VOLTAGE WAVEFORMS**  
**ENABLE AND DISABLE TIMES**  
**LOW- AND HIGH-LEVEL ENABLING**

- NOTES: A.  $C_L$  includes probe and jig 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. All input pulses are supplied by generators having the following characteristics:  $PRR \leq 10 \text{ MHz}$ ,  $Z_O = 50 \Omega$ ,  $t_r \leq 2.5 \text{ ns}$ ,  $t_f \leq 2.5 \text{ ns}$ .  
 D. The outputs are measured one at a time with one transition per measurement.

**Figure 1. Load Circuit and Voltage Waveforms**

**PACKAGING INFORMATION**

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>
5962-9450101QXA	ACTIVE	CFP	WD	48	1	TBD	Call TI	Level-NC-NC-NC
74ABT16241ADGGRE4	ACTIVE	TSSOP	DGG	48	2000	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM
74ABT16241ADGVRE4	ACTIVE	TVSOP	DGV	48	2000	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM
SN74ABT16241ADGGR	ACTIVE	TSSOP	DGG	48	2000	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM
SN74ABT16241ADGVR	ACTIVE	TVSOP	DGV	48	2000	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM
SN74ABT16241ADL	ACTIVE	SSOP	DL	48	25	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM
SN74ABT16241ADLR	ACTIVE	SSOP	DL	48	1000	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM
SNJ54ABT16241AWD	ACTIVE	CFP	WD	48	1	TBD	Call TI	Level-NC-NC-NC

<sup>(1)</sup> 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.

<sup>(2)</sup> 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)

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

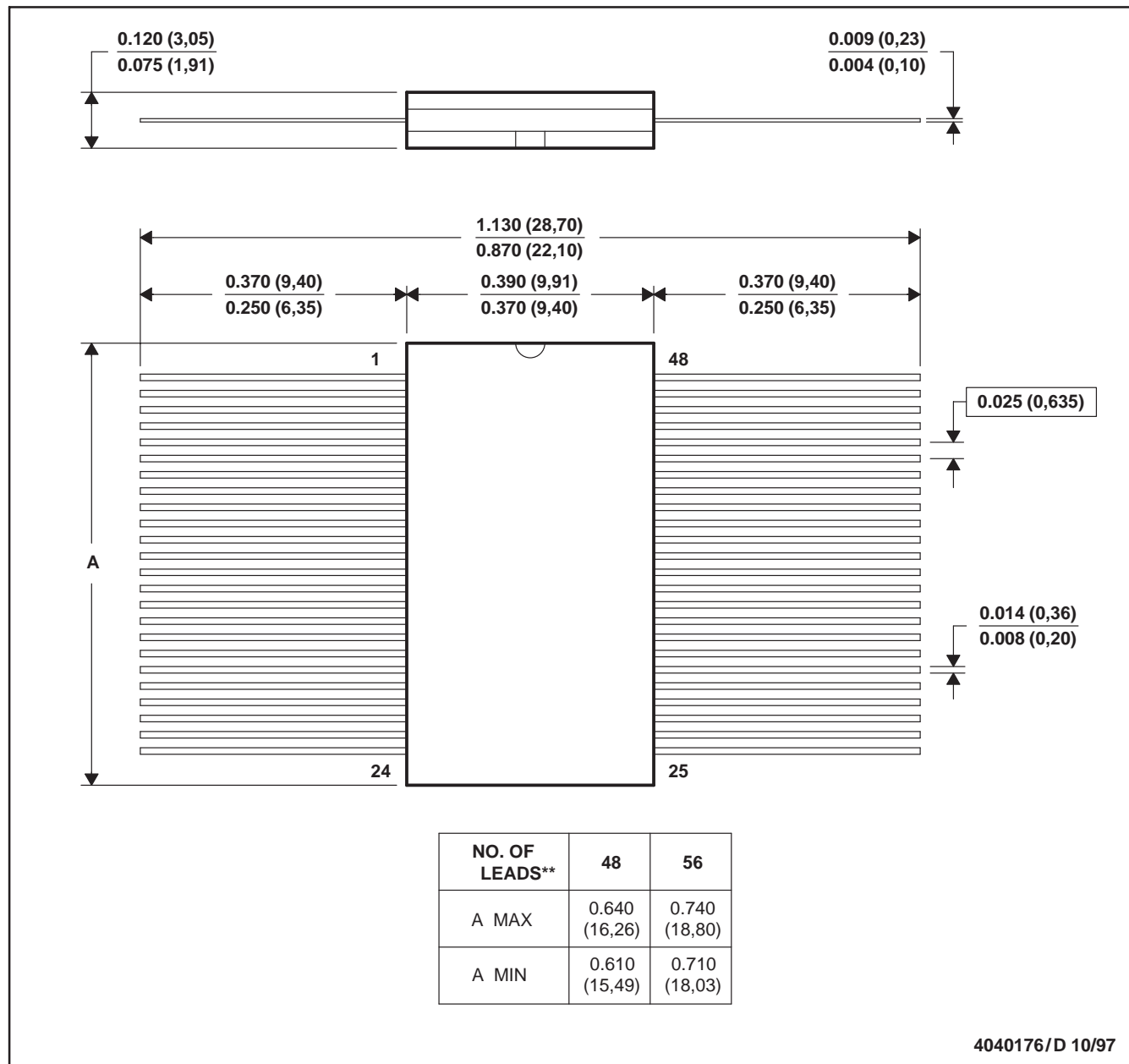
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WD (R-GDFP-F\*\*)

CERAMIC DUAL FLATPACK

48 LEADS 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 ceramic lid using glass frit.  
 D. Index point is provided on cap for terminal identification only  
 E. Falls within MIL STD 1835: GDFP1-F48 and JEDEC MO-146AA  
 GDFP1-F56 and JEDEC MO-146AB



DGV (R-PDSO-G\*\*)

PLASTIC SMALL-OUTLINE

24 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 per side.  
 D. Falls within JEDEC: 24/48 Pins – MO-153  
 14/16/20/56 Pins – MO-194

DL (R-PDSO-G\*\*)

PLASTIC SMALL-OUTLINE PACKAGE

48 PINS SHOWN



- 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 MO-118

DGG (R-PDSO-G\*\*)

PLASTIC SMALL-OUTLINE PACKAGE

48 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 protrusion not to exceed 0,15.  
 D. Falls within JEDEC MO-153

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DSP	<a href="http://dsp.ti.com">dsp.ti.com</a>	Broadband	<a href="http://www.ti.com/broadband">www.ti.com/broadband</a>
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Logic	<a href="http://logic.ti.com">logic.ti.com</a>	Military	<a href="http://www.ti.com/military">www.ti.com/military</a>
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View ROHS Compliant Devices

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**SN74ABT16241A**, Status: ACTIVE

View RoHS Compliant Devices **16-Bit Buffers/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

**16-Bit Buffers/Drivers With 3-State Outputs (Rev. G)** (sn74abt16241a.pdf, 220 KB)  
28 Oct 1998 Download

	SN54ABT16241A	SN74ABT16241A
Voltage Nodes(V)	5	5
Vcc range(V)		4.5 to 5.5
Logic		True
Input Level		TTL
Output Level		TTL
Output Drive(mA)		-32/64
No. of Outputs		16
tpd max(ns)		4.5
Static Current		34
	<a href="#">Samples</a>	<a href="#">Samples</a>
	<a href="#">Inventory</a>	<a href="#">Inventory</a>

**Product Information**

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Members of the Texas Instruments *Widebus*™ Family  
 State-of-the-Art *EPIC-II B*™ BiCMOS Design Significantly Reduces Power Dissipation  
 Typical  $V_{OLP}$  (Output Ground Bounce) < 1 V at  $V_{CC} = 5$  V,  $T_A = 25^\circ\text{C}$   
 Distributed  $V_{CC}$  and GND Pin Configuration Minimizes High-Speed Switching Noise  
 Flow-Through Architecture Optimizes PCB Layout  
 High-Drive Outputs (-32-mA  $I_{OH}$ , 64-mA  $I_{OL}$ )  
 Latch-Up Performance Exceeds 500 mA  
 Per JESD 17  
 ESD Protection Exceeds 2000 V Per MIL-STD-883, Method 3015; Exceeds 200 V Using Machine Model (C = 200 pF, R = 0)  
 Package Options Include Plastic 300-mil Shrink Small-Outline (DL), Thin Shrink Small-Outline (DGG), and Thin Very Small-Outline (DGV) Packages and 380-mil Fine-Pitch Ceramic Flat (WD) Package Using 25-mil Center-to-Center Spacings

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**Description**

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These devices can be used as four 4-bit buffers, two 8-bit buffers, or one 16-bit buffer. These devices provide true outputs and complementary output-enable (OE and OE\ ) inputs.

To ensure the high-impedance state during power up or power down, OE\ should be tied to  $V_{CC}$  through a pullup resistor; the minimum value of the resistor is determined by the current-sinking capability of the

driver. OE should be tied to GND through a pull-down resistor; the minimum value of the resistor is determined by the current-sourcing capability of the driver.

The SN54ABT16241A is characterized for operation over the full military temperature range of -55°C to 125°C. The SN74ABT16241A is characterized for operation from -40°C to 85°C.

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
74ABT16241ADGGRE4	ACTIVE	-40 to 85	0.88   1KU	TSSOP (DGG)   48	View	2000	<input type="checkbox"/>		Purchase Samples
74ABT16241ADGVRE4	ACTIVE	-40 to 85	0.88   1KU	TVSOP (DGV)   48	View	2000	<input type="checkbox"/>		Purchase Samples
SN74ABT16241ADGGR	ACTIVE	-40 to 85	0.88   1KU	TSSOP (DGG)   48	View	2000	<input type="checkbox"/>		Purchase Samples
SN74ABT16241ADGVR	ACTIVE	-40 to 85	0.88   1KU	TVSOP (DGV)   48	View	2000	<input type="checkbox"/>		Purchase Samples
SN74ABT16241ADL	ACTIVE	-40 to 85	0.88   1KU	SSOP (DL)   48	View	25	<input type="checkbox"/>		Purchase Samples
SN74ABT16241ADLR	ACTIVE	-40 to 85	0.88   1KU	SSOP (DL)   48	View	1000	<input type="checkbox"/>		Purchase Samples

Inventory							
TI Inventory Status				Reported Distributor Inventory			
74ABT16241ADGGRE4				As of 9:18 AM GMT, 25 Nov 2005			
	In Stock	In Progress QTY   Date	Lead Time	Region	Company	In Stock	Purchase
	0*		14 Weeks	None Reported <a href="#">View Distributors</a>			
74ABT16241ADGVRE4				As of 9:18 AM GMT, 25 Nov 2005			
	In Stock	In Progress QTY   Date	Lead Time	Region	Company	In Stock	Purchase
	0*	378   3 Feb	14 Weeks	None Reported <a href="#">View Distributors</a>			
		6   10 Feb					
SN74ABT16241ADGGR				As of 9:18 AM GMT, 25 Nov 2005			
	In Stock	In Progress QTY   Date	Lead Time	Region	Company	In Stock	Purchase
	0*		14 Weeks	Americas	DigiKey	>1k	<input type="text"/>
				Europe	Avnet-SILICA	>1k	<input type="text"/>
SN74ABT16241ADGVR				As of 9:18 AM GMT, 25 Nov 2005			
	In Stock	In Progress QTY   Date	Lead Time	Region	Company	In Stock	Purchase
	0*	378   3 Feb	14 Weeks	Americas	DigiKey	>1k	<input type="text"/>
		6   10 Feb					
SN74ABT16241ADL				As of 9:18 AM GMT, 25 Nov 2005			
	In Stock	In Progress QTY   Date	Lead Time	Region	Company	In Stock	Purchase
	0*	600   8 Dec	8 Weeks	Americas	Arrow	93	<input type="text"/>
		>10k   6 Feb			DigiKey	269	<input type="text"/>
				Europe	Spoerle	279	<input type="text"/>
SN74ABT16241ADLR				As of 9:18 AM GMT, 25 Nov 2005			
	In Stock	In Progress QTY   Date	Lead Time	Region	Company	In Stock	Purchase
	0*	>10k   6 Feb	11 Weeks	None Reported <a href="#">View Distributors</a>			

View all Distributors

Choose a Region



\* 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	
74ABT16241ADGGRE4 <input type="checkbox"/>	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM	<a href="#">View</a>	<a href="#">View</a>	
74ABT16241ADGVRE4 <input type="checkbox"/>	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM	<a href="#">View</a>	<a href="#">View</a>	
SN74ABT16241ADGGR <input type="checkbox"/>	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM	<a href="#">View</a>	<a href="#">View</a>	
SN74ABT16241ADGVR <input type="checkbox"/>	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM	<a href="#">View</a>	<a href="#">View</a>	
SN74ABT16241ADL <input type="checkbox"/>	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM	<a href="#">View</a>	<a href="#">View</a>	
SN74ABT16241ADLR <input type="checkbox"/>	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM	<a href="#">View</a>	<a href="#">View</a>	

\* 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

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### User Guides

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

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