

# CMOS Dual Complementary Pair Plus Inverter

High-Voltage Types (20-Volt Rating)

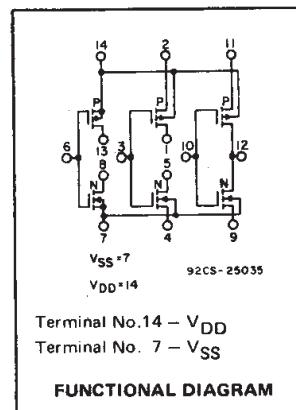
- CD4007UB types are comprised of three n-channel and three p-channel enhancement-type MOS transistors. The transistor elements are accessible through the package terminals to provide a convenient means for constructing the various typical circuits as shown in Fig. 2.

More complex functions are possible using multiple packages. Numbers shown in parentheses indicate terminals that are connected together to form the various configurations listed.

The CD4007UB types are supplied in 14-lead hermetic dual-in-line ceramic packages (F3A suffix), 14-lead dual-in-line plastic packages (E suffix), 14-lead small-outline packages (M, MT, M96, and NSR suffixes), and 14-lead thin shrink small-outline packages (PW and PWR suffixes).

## Features:

- Standardized symmetrical output characteristics
- Medium Speed Operation –  $t_{PHL}, t_{PLH} = 30 \text{ ns}$  (typ.) at 10 V
- 100% tested for quiescent current at 20 V
- Meets all requirements of JEDEC Tentative Standard No. 13B, "Standard Specifications for Description of 'B' Series CMOS Devices"
- Maximum input current of 1  $\mu\text{A}$  at 18 V over full package-temperature range; 100 nA at 18 V and 25°C


 Terminal No.14 – V<sub>DD</sub>  
 Terminal No. 7 – V<sub>SS</sub>

FUNCTIONAL DIAGRAM

## RECOMMENDED OPERATING CONDITIONS

For maximum reliability, nominal operating conditions should be selected so that operation is always within the following ranges:

CHARACTERISTIC	LIMITS		UNITS
	MIN.	MAX.	
Supply-Voltage Range (For T <sub>A</sub> = Full Package Temperature Range)	3	18	V

## STATIC ELECTRICAL CHARACTERISTICS

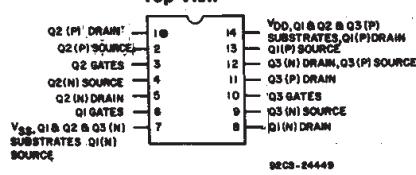
CHARACTERISTIC	CONDITIONS				LIMITS AT INDICATED TEMPERATURES (°C)				UNITS	
	V <sub>O</sub> (V)	V <sub>IN</sub> (V)	V <sub>DD</sub> (V)	+25				Min.	Typ.	Max.
				-55	-40	+85	+125			
Quiescent Device Current, I <sub>DD</sub> Max.	–	0,5	5	0.25	0.25	7.5	7.5	–	0.01	0.25
	–	0,10	10	0.5	0.5	15	15	–	0.01	0.5
	–	0,15	15	1	1	30	30	–	0.01	1
	–	0,20	20	5	5	150	150	–	0.02	5
Output Low (Sink) Current I <sub>OL</sub> Min.	0.4	0,5	5	0.64	0.61	0.42	0.36	0.51	1	–
	0.5	0,10	10	1.6	1.5	1.1	0.9	1.3	2.6	–
	1.5	0,15	15	4.2	4	2.8	2.4	3.4	6.8	–
Output High (Source) Current, I <sub>OH</sub> Min.	4.6	0,5	5	-0.64	-0.61	-0.42	-0.36	-0.51	-1	–
	2.5	0,5	5	-2	-1.8	-1.3	-1.15	-1.6	-3.2	–
	9.5	0,10	10	-1.6	-1.5	-1.1	-0.9	-1.3	-2.6	–
	13.5	0,15	15	-4.2	-4	-2.8	-2.4	-3.4	-6.8	–
Output Voltage: Low-Level, VOL Max.	–	0,5	5	0.05				–	0	0.05
	–	0,10	10	0.05				–	0	0.05
	–	0,15	15	0.05				–	0	0.05
Output Voltage: High-Level, VOH Min.	–	0,5	5	4.95				4.95	5	–
	–	0,10	10	9.95				9.95	10	–
	–	0,15	15	14.95				14.95	15	–
Input Low Voltage, V <sub>IL</sub> Max.	4.5	–	5	1				–	–	1
	9	–	10	2				–	–	2
	13.5	–	15	2.5				–	–	2.5
Input High Voltage, V <sub>IH</sub> Min.	0.5	–	5	4				4	–	–
	1	–	10	8				8	–	–
	1.5	–	15	12.5				12.5	–	–
Input Current I <sub>IN</sub> Max.		0,18	18	±0.1	±0.1	±1	±1	–	±10 <sup>-5</sup>	±0.1
										μA

## Applications:

- Extremely high-input impedance amplifiers
- Shapers
- Inverters
- Threshold detector
- Linear amplifiers
- Crystal oscillators

## TERMINAL DIAGRAM

### Top View



## CD4007UB Types

### MAXIMUM RATINGS, Absolute-Maximum Values:

#### DC SUPPLY-VOLTAGE RANGE, ( $V_{DD}$ )

Voltages referenced to  $V_{SS}$  Terminal ..... -0.5V to +20V

#### INPUT VOLTAGE RANGE, ALL INPUTS

..... -0.5V to  $V_{DD}$  +0.5V

#### DC INPUT CURRENT, ANY ONE INPUT

.....  $\pm 10\text{mA}$

#### POWER DISSIPATION PER PACKAGE ( $P_D$ ):

For  $T_A = -55^\circ\text{C}$  to  $+100^\circ\text{C}$  ..... 500mW

For  $T_A = +100^\circ\text{C}$  to  $+125^\circ\text{C}$  ..... Derate Linearity at 12mW/ $^\circ\text{C}$  to 200mW

#### DEVICE DISSIPATION PER OUTPUT TRANSISTOR

FOR  $T_A = \text{FULL PACKAGE-TEMPERATURE RANGE (All Package Types)}$  ..... 100mW

OPERATING-TEMPERATURE RANGE ( $T_A$ ) ..... -55 $^\circ\text{C}$  to +125 $^\circ\text{C}$

STORAGE TEMPERATURE RANGE ( $T_{STG}$ ) ..... -65 $^\circ\text{C}$  to +150 $^\circ\text{C}$

#### LEAD TEMPERATURE (DURING SOLDERING):

At distance  $1/16 \pm 1/32$  inch (1.59  $\pm$  0.79mm) from case for 10s max ..... +265 $^\circ\text{C}$

**DYNAMIC ELECTRICAL CHARACTERISTICS at  $T_A = 25^\circ\text{C}$ ; Input  $t_r, t_f = 20\text{ ns}$ ,  $C_L = 50\text{ pF}$ ,  $R_L = 200\text{ k}\Omega$**

CHARACTERISTIC	CONDITIONS	LIMITS		UNITS
		V <sub>DD</sub> Volts	Typ.	
Propagation Delay Time:	$t_{PHL}, t_{PLH}$	5	55	110
		10	30	60
		15	25	50
Transition Time	$t_{THL}, t_{TLH}$	5	100	200
		10	50	100
		15	40	80
Input Capacitance	$C_{IN}$	Any Input	10	15
				pF

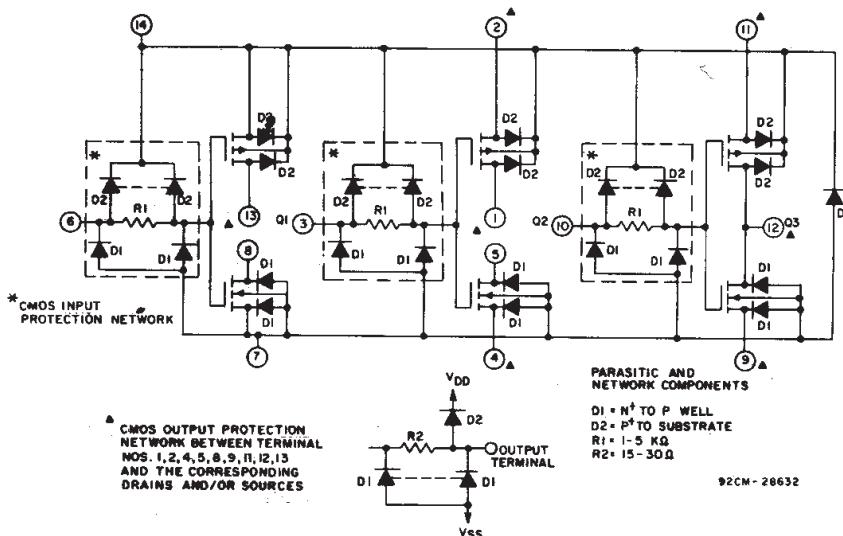
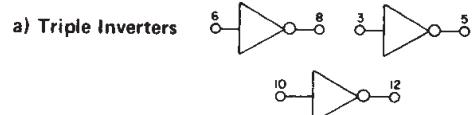


Fig. 1 — Detailed schematic diagram of CD4007UB showing input, output, and parasitic diodes.



(14,2,11); (8,13);  
(1,5); (7,4,9)

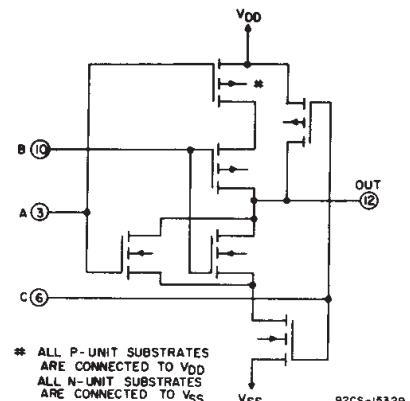


(13,2); (1,11);  
(12,5,8); (7,4,9)



(1,12,13); (2,14,11);  
(4,8); (5,9)

#### d) Tree (Relay) Logic



(13,12,5); (4,9,8);  
(14,2); (1,11)

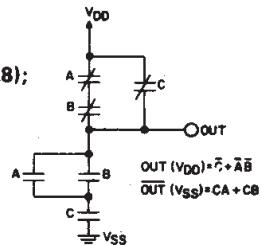
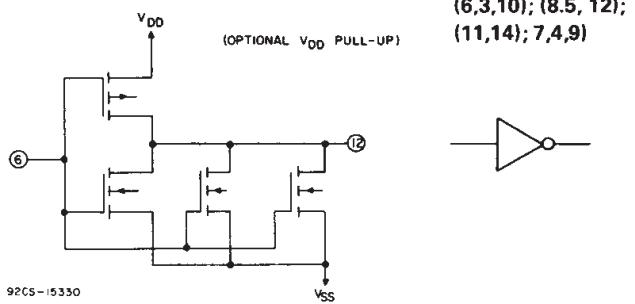


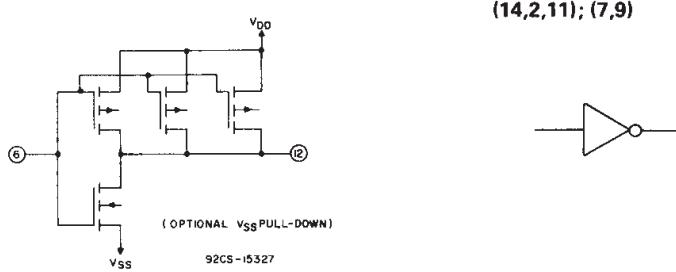
Fig. 2 — Sample CMOS logic circuit arrangements using type CD4007UB.

## CD4007UB Types

e) High Sink-Current Driver



f) High Source-Current Driver



g) High Sink - and Source-Current Driver

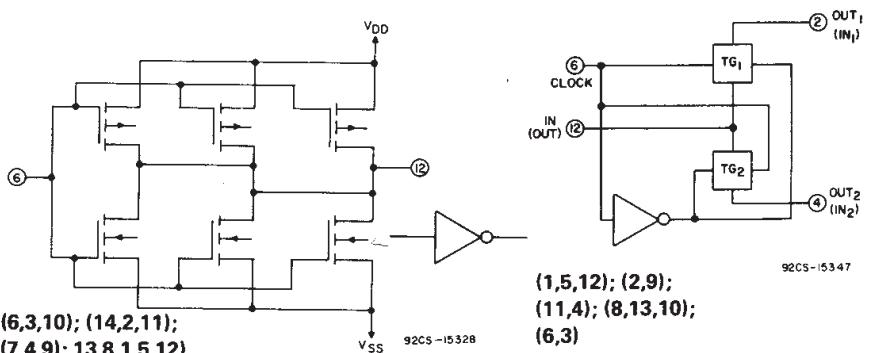


Fig. 2 – Sample CMOS logic circuit arrangements using type CD4007UB (Cont'd).

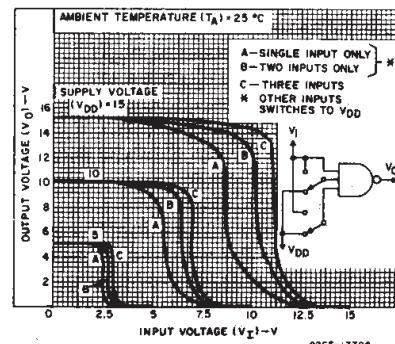


Fig. 3 – Typical voltage-transfer characteristics for NAND gate.

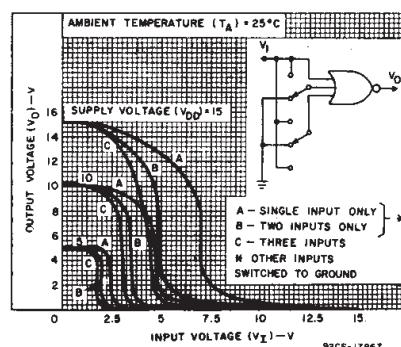


Fig. 4 – Typical voltage-transfer characteristics for NOR gate.

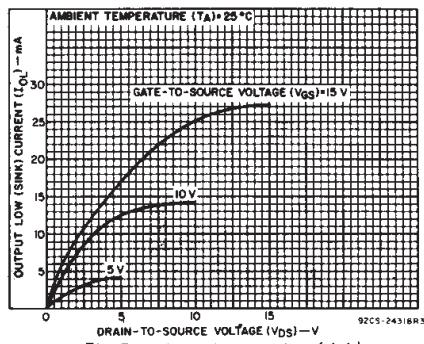


Fig. 5 – Typical output low (sink) current characteristics.

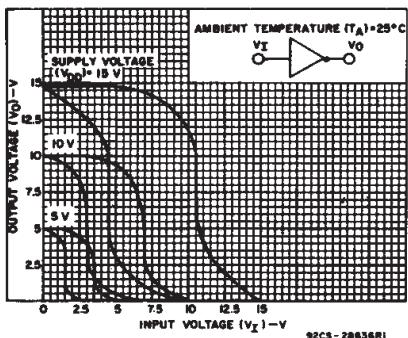


Fig. 6 – Minimum and maximum voltage-transfer characteristics for inverter.

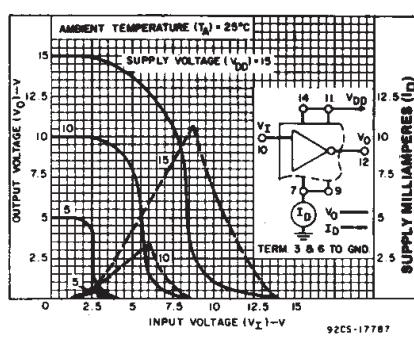


Fig. 7 – Typical current and voltage-transfer characteristics for inverter.

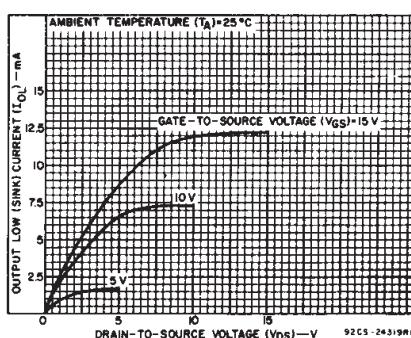


Fig. 8 – Minimum output low (sink) current characteristics.

## CD4007UB Types

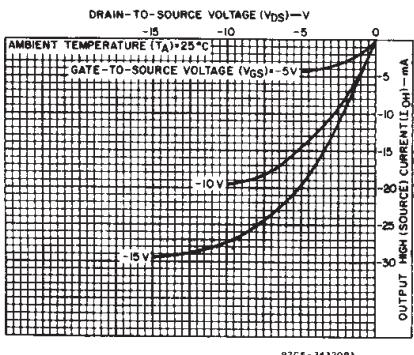


Fig. 9 — Typical output high (source) current characteristics.

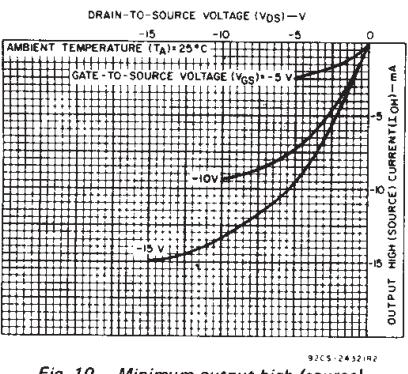


Fig. 10 — Minimum output high (source) current characteristics.

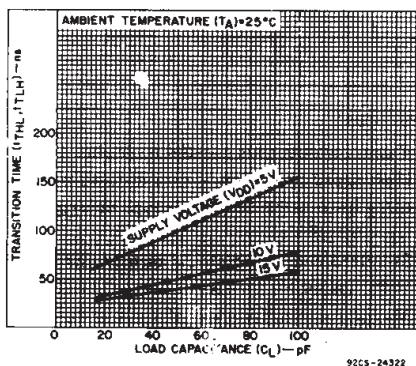


Fig. 13 — Typical transition time vs. load capacitance.

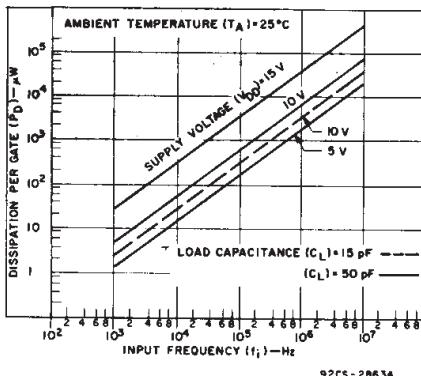


Fig. 14 — Typical dissipation vs. frequency characteristics.

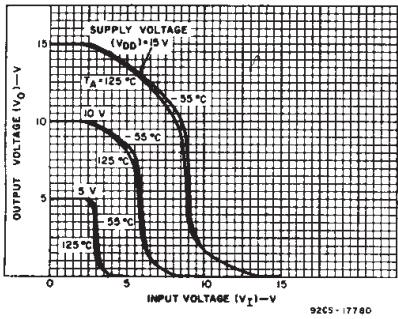


Fig. 11 — Typical voltage-transfer characteristics as a function of temperature.

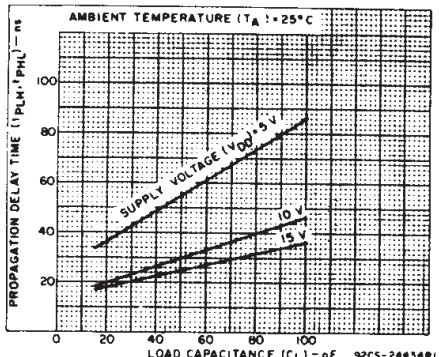


Fig. 12 — Typical propagation delay time vs. load capacitance.

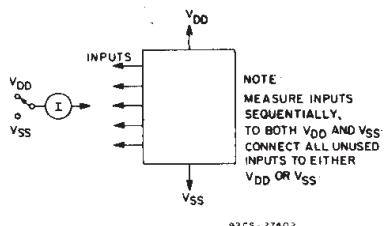


Fig. 15 — Input current test circuit.

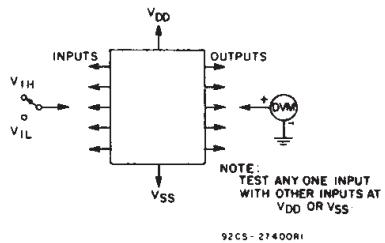


Fig. 16 — Input voltage test circuit.

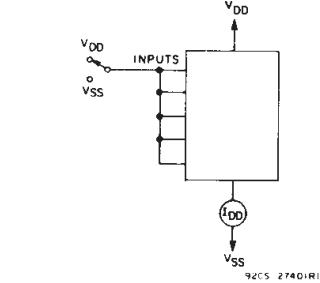
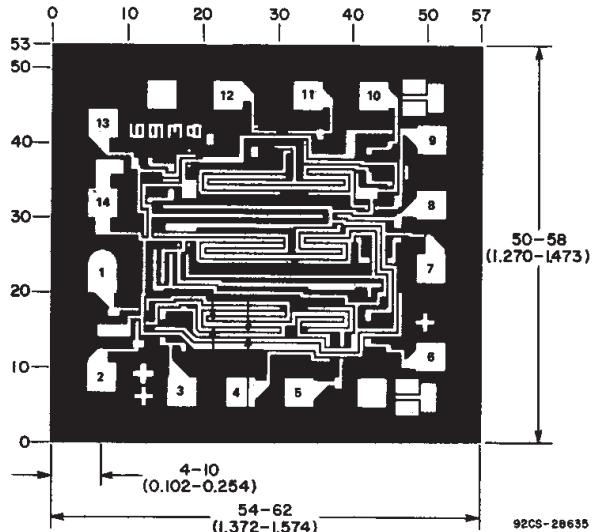


Fig. 17 — Quiescent device current test circuit.



DIMENSIONS AND PAD LAYOUT FOR CD4007UBH

Dimensions in parentheses are in millimeters and are derived from the basic inch dimensions as indicated. Grid graduations are in mils ( $10^{-3}$  inch).

**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>
CD4007UBE	ACTIVE	PDIP	N	14	25	Pb-Free (RoHS)	CU NIPDAU	Level-NC-NC-NC
CD4007UBF	ACTIVE	CDIP	J	14	1	TBD	Call TI	Level-NC-NC-NC
CD4007UBF3A	ACTIVE	CDIP	J	14	1	TBD	Call TI	Level-NC-NC-NC
CD4007UBF3A116	OBSOLETE	CDIP	J	14		TBD	Call TI	Call TI
CD4007UBM	ACTIVE	SOIC	D	14	50	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM
CD4007UBM96	ACTIVE	SOIC	D	14	2500	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM
CD4007UBM96E4	ACTIVE	SOIC	D	14	2500	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM
CD4007UBME4	ACTIVE	SOIC	D	14	50	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM
CD4007UBMT	ACTIVE	SOIC	D	14	250	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM
CD4007UBMTE4	ACTIVE	SOIC	D	14	250	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM
CD4007UBNSR	ACTIVE	SO	NS	14	2000	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM
CD4007UBNSRE4	ACTIVE	SO	NS	14	2000	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM
CD4007UBPW	ACTIVE	TSSOP	PW	14	90	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM
CD4007UBPWE4	ACTIVE	TSSOP	PW	14	90	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM
CD4007UBPWR	ACTIVE	TSSOP	PW	14	2000	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM
CD4007UBPWRE4	ACTIVE	TSSOP	PW	14	2000	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM

<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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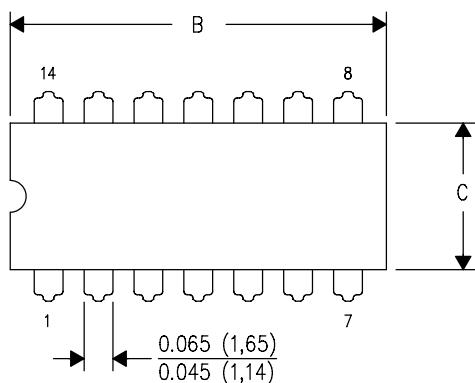
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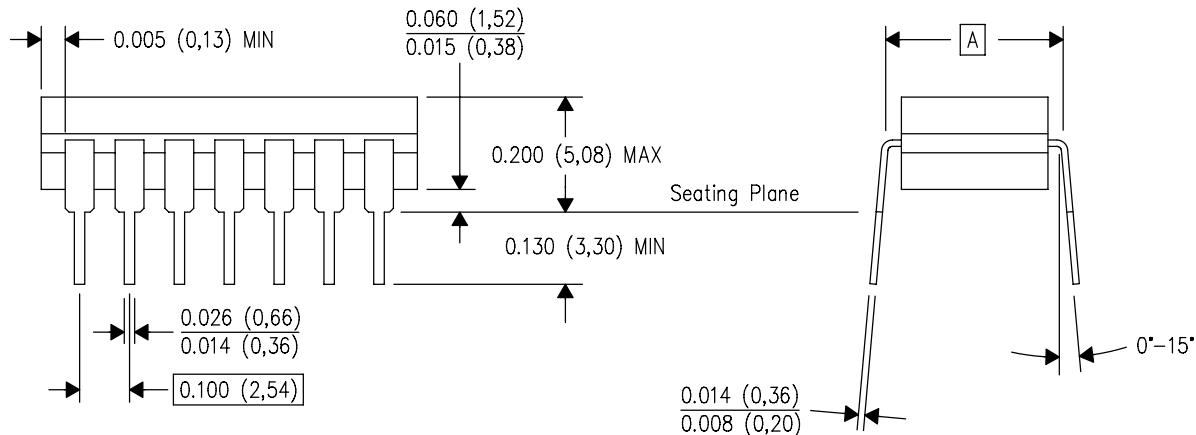
J (R-GDIP-T\*\*)

14 LEADS SHOWN

CERAMIC DUAL IN-LINE PACKAGE



PINS **\nDIM	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)



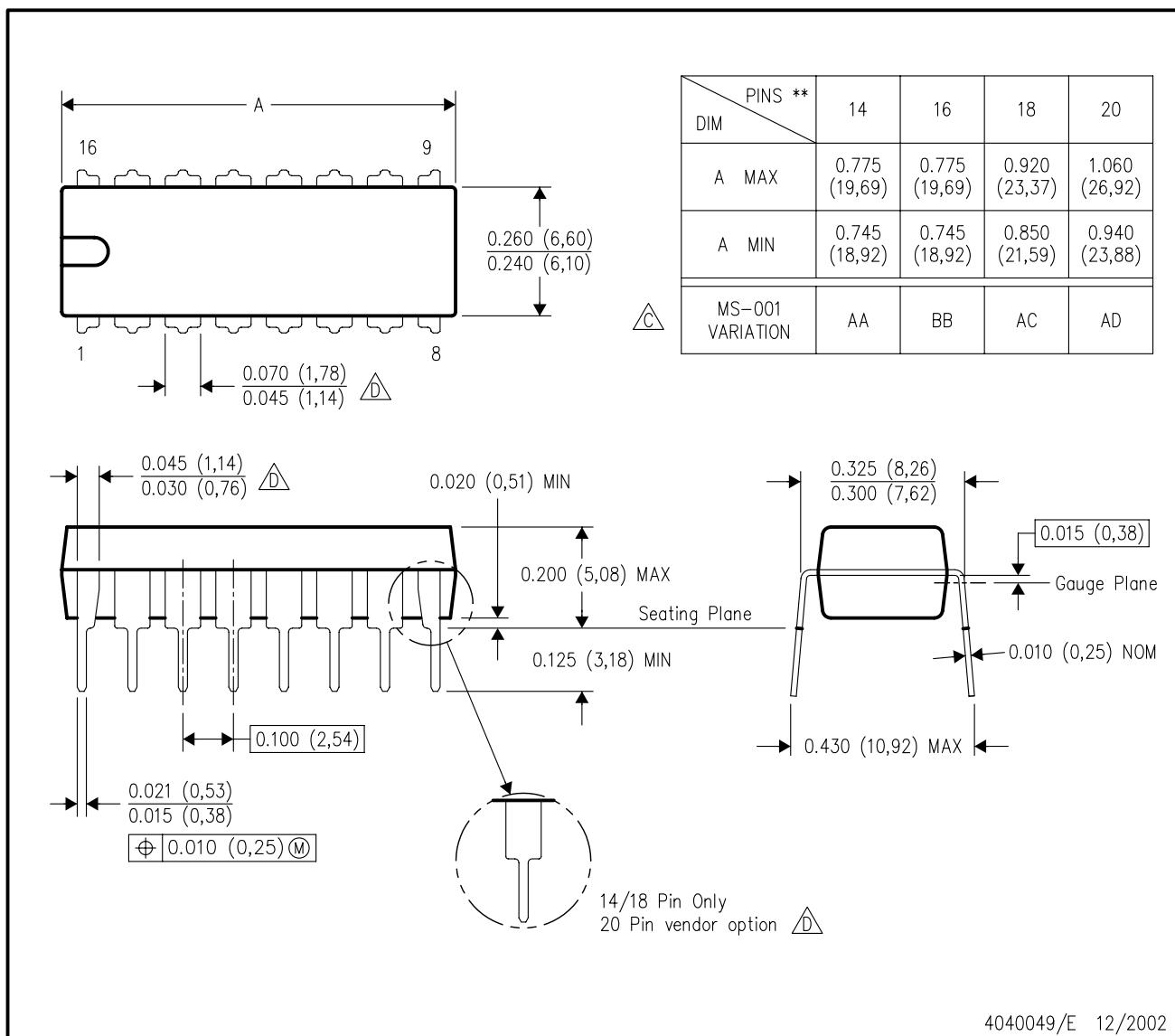
4040083/F 03/03

- 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.

## N (R-PDIP-T\*\*)

16 PINS SHOWN

## PLASTIC DUAL-IN-LINE PACKAGE



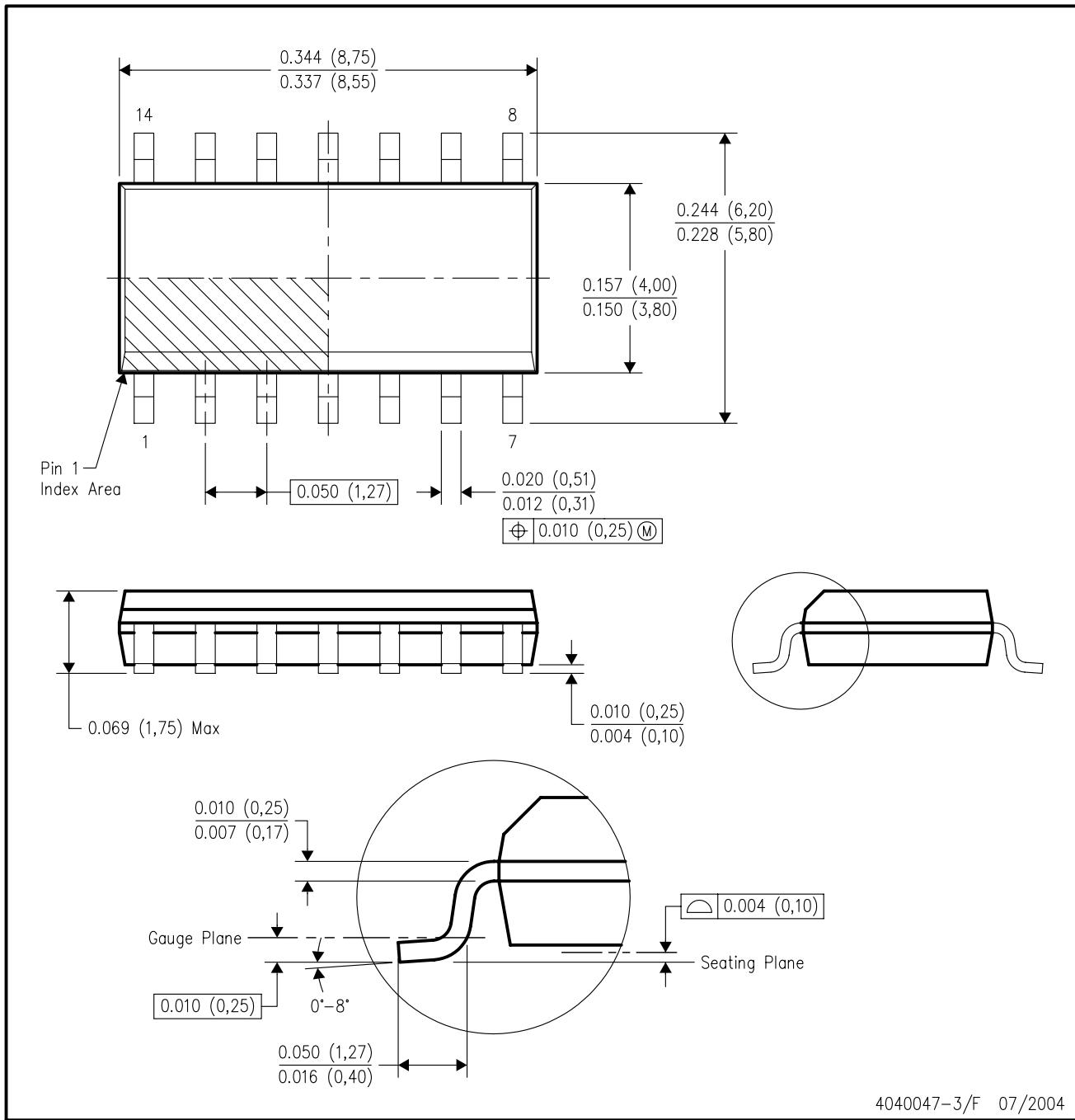
NOTES: A. All linear dimensions are in inches (millimeters).  
B. This drawing is subject to change without notice.

C. Falls within JEDEC MS-001, except 18 and 20 pin minimum body length (Dim A).

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

## D (R-PDSO-G14)

## PLASTIC SMALL-OUTLINE PACKAGE



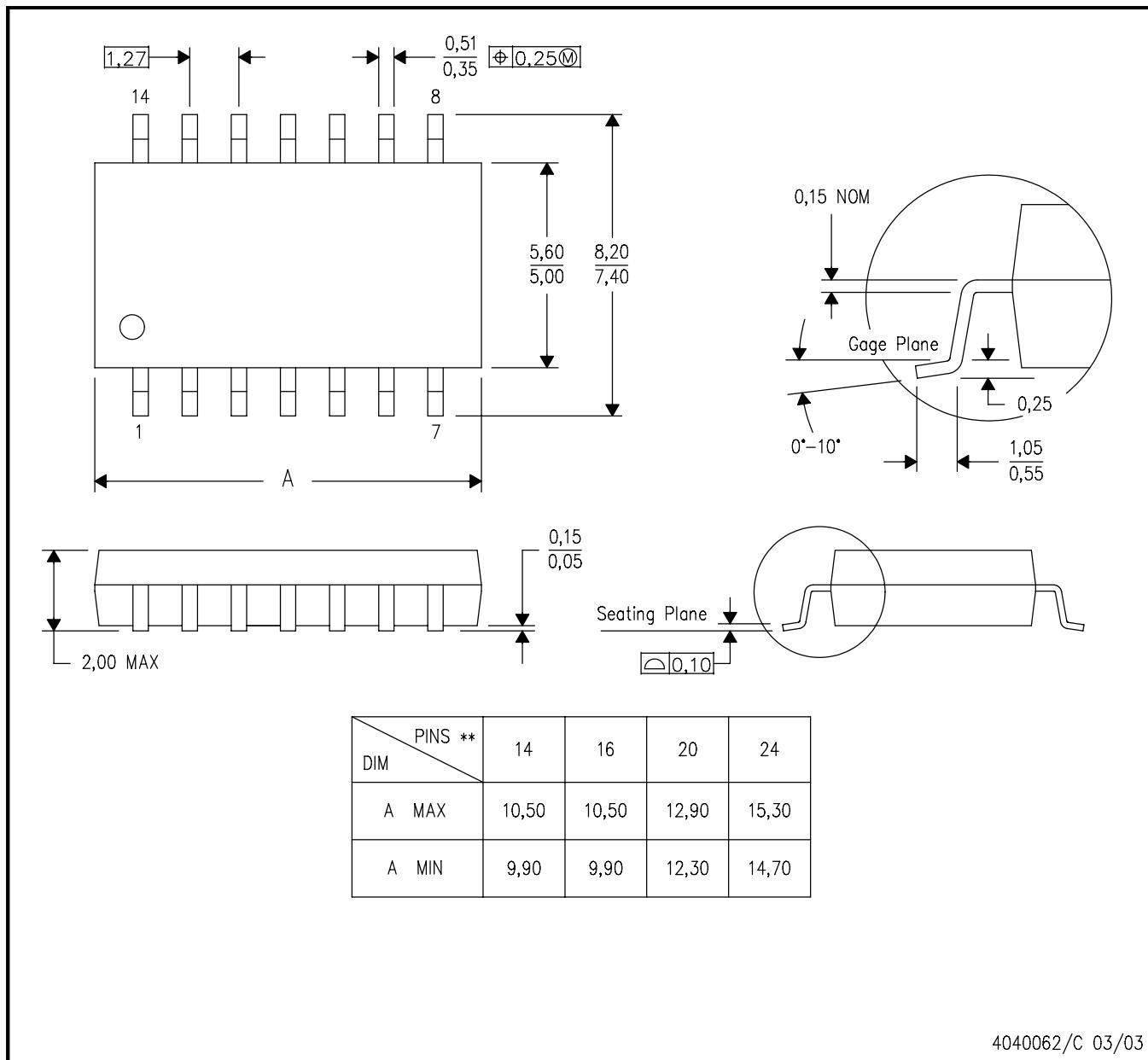
- NOTES:
- All linear dimensions are in inches (millimeters).
  - This drawing is subject to change without notice.
  - Body dimensions do not include mold flash or protrusion not to exceed 0.006 (0,15).
  - Falls within JEDEC MS-012 variation AB.

## MECHANICAL DATA

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

**14-PINS SHOWN**

**PLASTIC SMALL-OUTLINE PACKAGE**

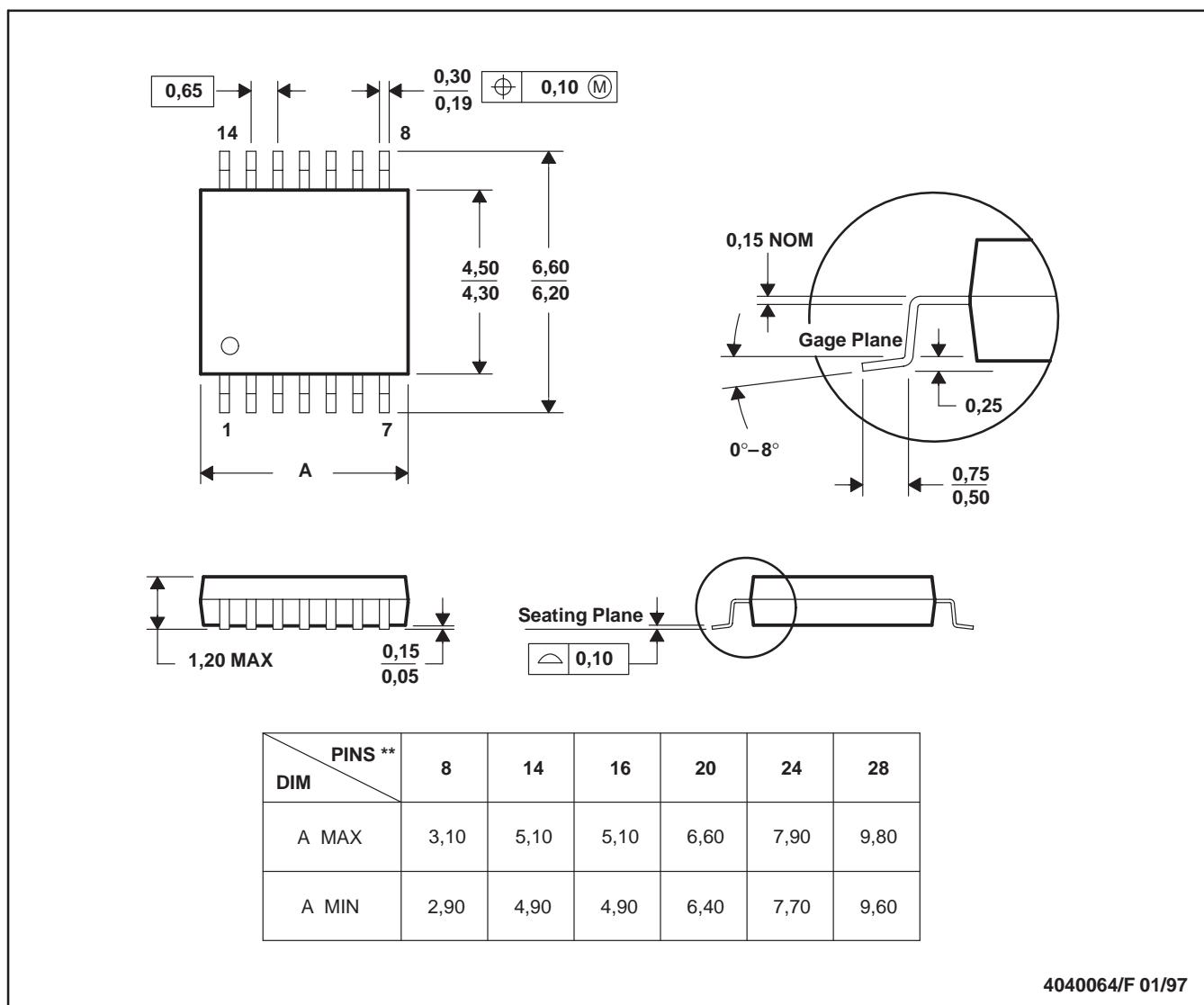


- NOTES: A. All linear dimensions are in millimeters.  
 B. This drawing is subject to change without notice.  
 C. Body dimensions do not include mold flash or protrusion, not to exceed 0,15.

PW (R-PDSO-G<sup>\*\*</sup>)

## PLASTIC SMALL-OUTLINE PACKAGE

14 PINS SHOWN



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

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Data Converters	dataconverter.ti.com	Automotive	<a href="http://www.ti.com/automotive">www.ti.com/automotive</a>
DSP	dsp.ti.com	Broadband	<a href="http://www.ti.com/broadband">www.ti.com/broadband</a>
Interface	interface.ti.com	Digital Control	<a href="http://www.ti.com/digitalcontrol">www.ti.com/digitalcontrol</a>
Logic	logic.ti.com	Military	<a href="http://www.ti.com/military">www.ti.com/military</a>
Power Mgmt	power.ti.com	Optical Networking	<a href="http://www.ti.com/opticalnetwork">www.ti.com/opticalnetwork</a>
Microcontrollers	microcontroller.ti.com	Security	<a href="http://www.ti.com/security">www.ti.com/security</a>
		Telephony	<a href="http://www.ti.com/telephony">www.ti.com/telephony</a>
		Video & Imaging	<a href="http://www.ti.com/video">www.ti.com/video</a>
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CMOS Dual Complementary Pair Plus Inverter

[clear gif](#) [Features](#) [Quality & Pb-Free Data](#) [Related Products](#) [Tools & Software](#) [Samples](#) [Pricing/Packaging](#) [Inventory](#) [Symbols/Footprints](#) [Technical Documents](#) [Applications Notes](#) [Simulation Models](#) [Reference Designs](#)**Refine Your Selection**

- Logic: Inverting Buffer Drivers

**Support**

- KnowledgeBase
- Contact Technical Support
- TI Cross Reference
- Training
- Part Marking Lookup
- Part Number Nomenclature

**Datasheet**[Download Datasheet](#)**CD4007UB TYPES (Rev. C)** (cd4007ub.pdf, 545 KB)21 Aug 2003 [Download](#)**CD4007UB**

<b>Voltage Nodes(V)</b>	5, 10, 15
	<a href="#">Samples</a>
	<a href="#">Inventory</a>

**Product Information** [Features](#)[Save this to your personal library](#)

Standardized symmetrical output characteristics

Medium Speed Operation —  $t_{PHL}$ ,  $t_{PLH}$  = 30 ns (typ.) at 10 V

100% tested for quiescent current at 20 V

Meets all requirements of JEDEC Tentative Standard No. 13B, "Standard Specifications for Description of 'B' Series CMOS Devices"

Maximum input current of 1  $\mu$ A at 18 V over full package-temperature range; 100 nA at 18 V and 25°C

Applications:

- Extremely high-input impedance amplifiers
- Shapers
- Inverters
- Threshold detector
- Linear amplifiers
- Crystal oscillators

Data sheet acquired from Harris Semiconductor

 [Description](#)

CD4007UB types are comprised of three n-channel and three p-channel enhancement-type MOS transistors. The transistor elements are accessible through the package terminals to provide a convenient means for constructing the various typical circuits as shown in Fig. 2.

More complex functions are possible using multiple packages. Numbers shown in parentheses indicate terminals that are connected together to form the various configurations listed.

The CD4007UB types are supplied in 14-lead hermetic dual-in-line ceramic packages (F3A suffix), 14-lead dual-in-line plastic packages (E suffix), 14-lead small-outline packages (M, MT, M96, and NSR suffixes), and 14-lead thin shrink small-outline packages (PW and PWR suffixes).

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
CD4007UBE	ACTIVE	-55 to 125	0.22   1KU	PDIP (N)   14	<a href="#">View</a>	25	<input type="checkbox"/>	Contact TI Distributor or Sales Office
CD4007UBF	ACTIVE	-55 to 125	3.12   1KU	CDIP (J)   14		1	<input type="checkbox"/>	<a href="#">Purchase Samples</a>
CD4007UBF3A	ACTIVE	-55 to 125	3.66   1KU	CDIP (J)   14		1	<input type="checkbox"/>	<a href="#">Purchase Samples</a>
CD4007UBF3A116	OBsolete	-55 to 125		CDIP (J)   14			<input type="checkbox"/>	Not Available
CD4007UBM	ACTIVE	-55 to 125	0.22   1KU	SOIC (D)   14	<a href="#">View</a>	50	<input type="checkbox"/>	Contact TI Distributor or Sales Office
CD4007UBM96	ACTIVE	-55 to 125	0.22   1KU	SOIC (D)   14	<a href="#">View</a>	2500	<input type="checkbox"/>	<a href="#">Purchase Samples</a>
CD4007UBM96E4	ACTIVE	-55 to 125	0.22   1KU	SOIC (D)   14	<a href="#">View</a>	2500	<input type="checkbox"/>	<a href="#">Purchase Samples</a>
CD4007UBME4	ACTIVE	-55 to 125	0.22   1KU	SOIC (D)   14	<a href="#">View</a>	50	<input type="checkbox"/>	<a href="#">Request Free Samples</a>
CD4007UBMT	ACTIVE	-55 to 125	0.55   1KU	SOIC (D)   14	<a href="#">View</a>	250	<input type="checkbox"/>	<a href="#">Purchase Samples</a>
CD4007UBMTE4	ACTIVE	-55 to 125	0.55   1KU	SOIC (D)   14	<a href="#">View</a>	250	<input type="checkbox"/>	<a href="#">Purchase Samples</a>
CD4007UBNSR	ACTIVE	-55 to 125	0.22   1KU	SO (NS)   14	<a href="#">View</a>	2000	<input type="checkbox"/>	<a href="#">Purchase Samples</a>
CD4007UBNSRE4	ACTIVE	-55 to 125	0.22   1KU	SO (NS)   14	<a href="#">View</a>	2000	<input type="checkbox"/>	<a href="#">Purchase Samples</a>
CD4007UBPW	ACTIVE	-55 to 125	0.22   1KU	TSSOP (PW)   14	<a href="#">View</a>	90	<input type="checkbox"/>	<a href="#">Purchase Samples</a>
CD4007UBPWE4	ACTIVE	-55 to 125	0.22   1KU	TSSOP (PW)   14	<a href="#">View</a>	90	<input type="checkbox"/>	<a href="#">Purchase Samples</a>
CD4007UBPWR	ACTIVE	-55 to 125	0.22   1KU	TSSOP (PW)   14	<a href="#">View</a>	2000	<input type="checkbox"/>	<a href="#">Purchase Samples</a>
CD4007UBPWRE4	ACTIVE	-55 to 125	0.22   1KU	TSSOP (PW)   14	<a href="#">View</a>	2000	<input type="checkbox"/>	<a href="#">Purchase Samples</a>

## Inventory

	TI Inventory Status			Reported Distributor Inventory			
CD4007UBE	As of 9:55 AM GMT, 29 Nov 2005			As of 9:55 AM GMT, 29 Nov 2005			
	In Stock	In Progress QTY   Date	Lead Time	Region	Company	In Stock	Purchase
	8450*	>10k   12 Dec	4 Weeks	Americas	Avnet	>1k	
					DigiKey	>1k	
					Newark InOne	>1k	
					Arrow Northern Europe	200	
				Europe	EBV Elektronik	>1k	
					Rutronik	>1k	
					Spoerle	>1k	
CD4007UBF	As of 9:55 AM GMT, 29 Nov 2005			As of 9:55 AM GMT, 29 Nov 2005			
	In Stock	In Progress QTY   Date	Lead Time	Region	Company	In Stock	Purchase
	426*	9433   28 Dec	8 Weeks	None Reported			
				<a href="#">View Distributors</a>			
CD4007UBF3A	As of 9:55 AM GMT, 29 Nov 2005			As of 9:55 AM GMT, 29 Nov 2005			
	In Stock	In Progress QTY   Date	Lead Time	Region	Company	In Stock	Purchase
	295*	9433   28 Dec	8 Weeks	Europe	Avnet-SILICA	22	
					EBV Elektronik	24	
CD4007UBM	As of 9:55 AM GMT, 29 Nov 2005			As of 9:55 AM GMT, 29 Nov 2005			

	In Stock	In Progress QTY   Date	Lead Time	Region	Company	In Stock	Purchase
	2300*	2950   12 Dec	10 Weeks	Americas	DigiKey	925	
		>10k   6 Mar			EBV Elektronik	150	
					Rutronik	>1k	
					Spoerle	546	
CD4007UBM96	As of 9:55 AM GMT, 29 Nov 2005			As of 9:55 AM GMT, 29 Nov 2005			
	In Stock	In Progress QTY   Date	Lead Time	Region	Company	In Stock	Purchase
	0*	>10k   3 Mar	14 Weeks	None Reported <a href="#">View Distributors</a>			
CD4007UBM96E4	As of 9:55 AM GMT, 29 Nov 2005			As of 9:55 AM GMT, 29 Nov 2005			
	In Stock	In Progress QTY   Date	Lead Time	Region	Company	In Stock	Purchase
	0*	>10k   3 Mar	14 Weeks	None Reported <a href="#">View Distributors</a>			
CD4007UBME4	As of 9:55 AM GMT, 29 Nov 2005			As of 9:55 AM GMT, 29 Nov 2005			
	In Stock	In Progress QTY   Date	Lead Time	Region	Company	In Stock	Purchase
	2300*	2950   12 Dec	10 Weeks	None Reported <a href="#">View Distributors</a>			
		>10k   6 Mar					
CD4007UBMT	As of 9:55 AM GMT, 29 Nov 2005			As of 9:55 AM GMT, 29 Nov 2005			
	In Stock	In Progress QTY   Date	Lead Time	Region	Company	In Stock	Purchase
	0*	>10k   6 Mar	14 Weeks	None Reported <a href="#">View Distributors</a>			
CD4007UBMTE4	As of 9:55 AM GMT, 29 Nov 2005			As of 9:55 AM GMT, 29 Nov 2005			
	In Stock	In Progress QTY   Date	Lead Time	Region	Company	In Stock	Purchase
	0*	>10k   6 Mar	14 Weeks	None Reported <a href="#">View Distributors</a>			
CD4007UBNSR	As of 9:55 AM GMT, 29 Nov 2005			As of 9:55 AM GMT, 29 Nov 2005			
	In Stock	In Progress QTY   Date	Lead Time	Region	Company	In Stock	Purchase
	0*	391   6 Jan	10 Weeks	None Reported <a href="#">View Distributors</a>			
		264   13 Jan					
		625   20 Jan					
		968   27 Jan					
		1955   17 Feb					
CD4007UBNSRE4	As of 9:55 AM GMT, 29 Nov 2005			As of 9:55 AM GMT, 29 Nov 2005			
	In Stock	In Progress QTY   Date	Lead Time	Region	Company	In Stock	Purchase
	0*	391   6 Jan	10 Weeks	None Reported <a href="#">View Distributors</a>			
		264   13 Jan					
		625   20 Jan					
		968   27 Jan					
		1955   17 Feb					
CD4007UBPW	As of 9:55 AM GMT, 29 Nov 2005			As of 9:55 AM GMT, 29 Nov 2005			
	In Stock	In Progress QTY   Date	Lead Time	Region	Company	In Stock	Purchase
	1620*	>10k   3 Apr	12 Weeks	None Reported <a href="#">View Distributors</a>			
CD4007UBPWE4	As of 9:55 AM GMT, 29 Nov 2005			As of 9:55 AM GMT, 29 Nov 2005			
	In Stock	In Progress QTY   Date	Lead Time	Region	Company	In Stock	Purchase
	1620*	>10k   3 Apr	12 Weeks	None Reported <a href="#">View Distributors</a>			
CD4007UBPWR	As of 9:55 AM GMT, 29 Nov 2005			As of 9:55 AM GMT, 29 Nov 2005			
	In Stock	In Progress QTY   Date	Lead Time	Region	Company	In Stock	Purchase
	0*		16 Weeks	None Reported <a href="#">View Distributors</a>			

<b>CD4007UBPWRE4</b>	As of 9:55 AM GMT, 29 Nov 2005		As of 9:55 AM GMT, 29 Nov 2005				
	In Stock	In Progress QTY   Date	Lead Time	Region	Company	In Stock	Purchase
	0*		16 Weeks	None Reported <a href="#">View Distributors</a>			

\* 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

<input type="checkbox"/>	Product Content				MTBF/FIT Rate
Device	Eco Plan*	Lead/Ball Finish	MSL Rating/Peak Reflow	Details	Details
CD4007UBE <input type="checkbox"/>	Pb-Free (RoHS)	CU NIPDAU	Level-NC-NC-NC	<a href="#">View</a>	<a href="#">View</a>
CD4007UBF	TBD	Call TI	Level-NC-NC-NC	<a href="#">View</a>	<a href="#">View</a>
CD4007UBF3A	TBD	Call TI	Level-NC-NC-NC	<a href="#">View</a>	<a href="#">View</a>
CD4007UBF3A116					<a href="#">View</a>
CD4007UBM <input type="checkbox"/>	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM	<a href="#">View</a>	<a href="#">View</a>
CD4007UBM96 <input type="checkbox"/>	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM	<a href="#">View</a>	<a href="#">View</a>
CD4007UBM96E4 <input type="checkbox"/>	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM	<a href="#">View</a>	<a href="#">View</a>
CD4007UBME4 <input type="checkbox"/>	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM	<a href="#">View</a>	<a href="#">View</a>
CD4007UBMT <input type="checkbox"/>	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM	<a href="#">View</a>	<a href="#">View</a>
CD4007UBMTE4 <input type="checkbox"/>	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM	<a href="#">View</a>	<a href="#">View</a>
CD4007UBNSR <input type="checkbox"/>	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM	<a href="#">View</a>	<a href="#">View</a>
CD4007UBNSRE4 <input type="checkbox"/>	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM	<a href="#">View</a>	<a href="#">View</a>
CD4007UBPW <input type="checkbox"/>	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM	<a href="#">View</a>	<a href="#">View</a>
CD4007UBPWE4 <input type="checkbox"/>	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM	<a href="#">View</a>	<a href="#">View</a>
CD4007UBPWR <input type="checkbox"/>	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM	<a href="#">View</a>	<a href="#">View</a>
CD4007UBPWRE4 <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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### Application Notes

**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](#)

**Understanding Buffered and Unbuffered CD4xxxB Series Device Characteristics** (scha004.htm, 9 KB)

03 Dec 2001 [Abstract](#)

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### User Guides

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

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

05 Dec 2002 [Download](#)

### More Literature

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

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

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

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