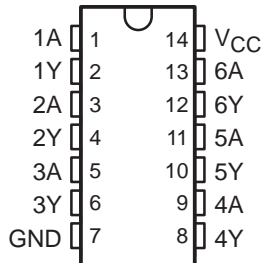


# SN54HC05, SN74HC05 HEX INVERTERS WITH OPEN-DRAIN OUTPUTS

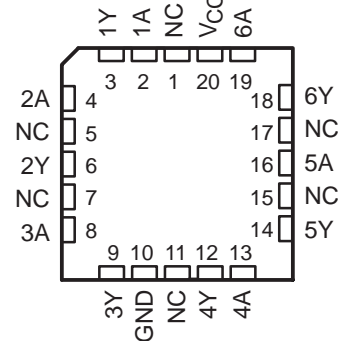
SCLS080D – MARCH 1984 – REVISED AUGUST 2003

- Wide Operating Voltage Range of 2 V to 6 V
- Outputs Can Drive Up To 10 LSTTL Loads
- Low Power Consumption, 20- $\mu$ A Max  $I_{CC}$
- Typical  $t_{pd} = 8$  ns
- $\pm 4$ -mA Output Drive at 5 V
- Low Input Current of 1  $\mu$ A Max

SN54HC05 . . . J OR W PACKAGE  
SN74HC05 . . . D, DB, N, NS, OR PW PACKAGE  
(TOP VIEW)



SN54HC05 . . . FK PACKAGE  
(TOP VIEW)



NC – No internal connection

## description/ordering information

The 'HC05 devices contain six independent inverters. They perform the Boolean function  $Y = \bar{A}$  in positive logic. The open-drain outputs require pullup resistors to perform correctly. They may be connected to other open-drain outputs to implement active-low wired-OR or active-high wired-AND functions.

## ORDERING INFORMATION

$T_A$	PACKAGE†		ORDERABLE PART NUMBER	TOP-SIDE MARKING
-40°C to 85°C	PDIP – N	Tube of 25	SN74HC05N	SN74HC05N
		Tube of 50	SN74HC05D	HC05
	SOIC – D	Reel of 2500	SN74HC05DR	
		Reel of 250	SN74HC05DT	
	SOP – NS	Reel of 2000	SN74HC05NSR	
	SSOP – DB	Reel of 2000	SN74HC05DBR	HC05
-55°C to 125°C	TSSOP – PW	Reel of 2000	SN74HC05PWR	HC05
		Reel of 250	SN74HC05PWT	
	CDIP – J	Tube of 25	SNJ54HC05J	SNJ54HC05J
	CFP – W	Tube of 150	SNJ54HC05W	SNJ54HC05W
	LCCC – FK	Tube of 55	SNJ54HC05FK	SNJ54HC05FK

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



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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.

**SN54HC05, SN74HC05**  
**HEX INVERTERS**  
**WITH OPEN-DRAIN OUTPUTS**  
 SCLS080D – MARCH 1984 – REVISED AUGUST 2003

**FUNCTION TABLE**  
 (each inverter)

INPUT A	OUTPUT Y
H	L
L	H

**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 $V_{CC}$ )	±25 mA
Continuous current through $V_{CC}$ or GND	±50 mA
Package thermal impedance, $\theta_{JA}$ (see Note 2): D package	86°C/W
DB package	96°C/W
N package	80°C/W
NS package	76°C/W
PW package	113°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.

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

		SN54HC05			SN74HC05			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	
$\Delta t/\Delta v$	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.



**SN54HC05, SN74HC05**  
**HEX INVERTERS**  
**WITH OPEN-DRAIN OUTPUTS**

SCLS080D – MARCH 1984 – REVISED AUGUST 2003

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

PARAMETER	TEST CONDITIONS	V <sub>CC</sub>	T <sub>A</sub> = 25°C			SN54HC05		SN74HC05		UNIT
			MIN	TYP	MAX	MIN	MAX	MIN	MAX	
I <sub>OH</sub>	V <sub>I</sub> = V <sub>IH</sub> or V <sub>IL</sub> , V <sub>O</sub> = V <sub>CC</sub>	6 V		0.01	0.5		10		5	μA
V <sub>OL</sub>	V <sub>I</sub> = V <sub>IH</sub> or V <sub>IL</sub>	I <sub>OL</sub> = 20 μA	2 V	0.002	0.1		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 <sub>OL</sub> = 4 mA	4.5 V	0.17	0.26		0.4		0.33	
		I <sub>OL</sub> = 5.2 mA	6 V	0.15	0.26		0.4		0.33	
I <sub>I</sub>	V <sub>I</sub> = V <sub>CC</sub> or 0	6 V		±0.1	±100		±1000		±1000	nA
I <sub>CC</sub>	V <sub>I</sub> = V <sub>CC</sub> or 0, I <sub>O</sub> = 0	6 V			2		40		20	μA
C <sub>i</sub>		2 V to 6 V		3	10		10		10	pF

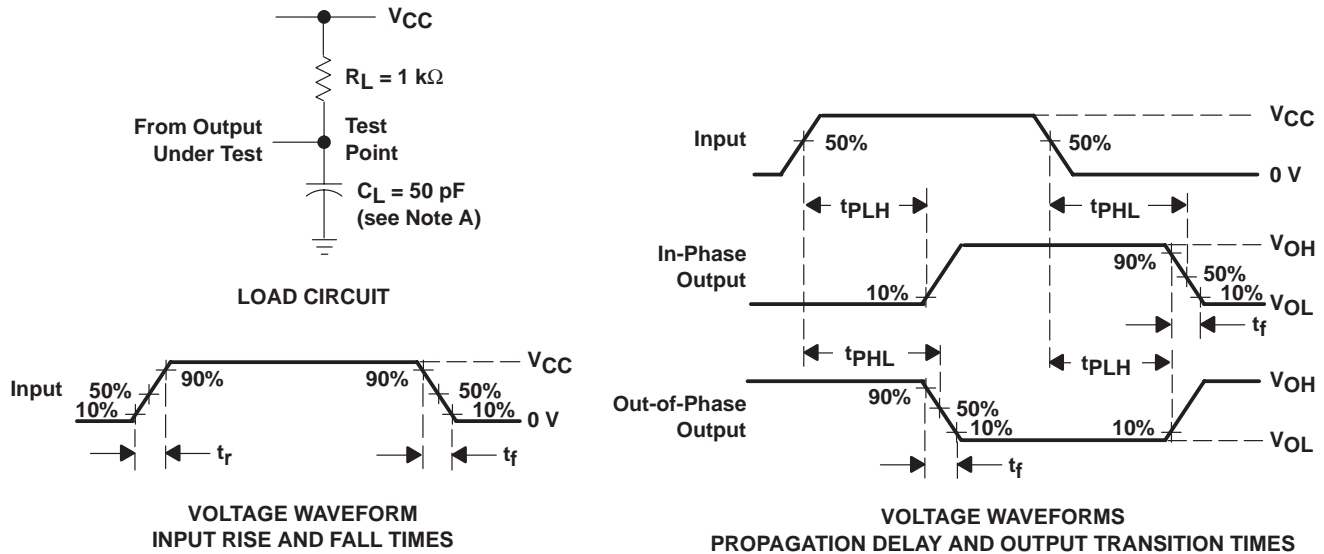
**switching characteristics over recommended operating free-air temperature range, C<sub>L</sub> = 50 pF (unless otherwise noted) (see Figure 1)**

PARAMETER	FROM (INPUT)	TO (OUTPUT)	V <sub>CC</sub>	T <sub>A</sub> = 25°C			SN54HC05		SN74HC05		UNIT
				MIN	TYP	MAX	MIN	MAX	MIN	MAX	
t <sub>PLH</sub>	A	Y	2 V		60	115		175		145	ns
			4.5 V		13	23		35		29	
			6 V		10	20		30		25	
t <sub>PHL</sub>	A	Y	2 V		45	85		130		105	ns
			4.5 V		9	17		26		21	
			6 V		8	14		22		18	
t <sub>f</sub>		Y	2 V		38	75		110		95	ns
			4.5 V		8	15		22		19	
			6 V		6	13		19		16	

**operating characteristics, T<sub>A</sub> = 25°C**

PARAMETER	TEST CONDITIONS	TYP	UNIT
C <sub>pd</sub> Power dissipation capacitance per inverter	No load	20	pF

PARAMETER MEASUREMENT INFORMATION



- NOTES: A.  $C_L$  includes probe and test-fixture capacitance.  
 B. Phase relationships between waveforms were chosen arbitrarily. All input pulses are supplied by generators having the following characteristics:  $PRR \leq 1\text{ MHz}$ ,  $Z_O = 50\ \Omega$ ,  $t_r = 6\text{ ns}$ ,  $t_f = 6\text{ ns}$ .  
 C. The outputs are measured one at a time with one input 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>
5962-88718012A	ACTIVE	LCCC	FK	20	1	TBD	Call TI	Level-NC-NC-NC
5962-8871801CA	ACTIVE	CDIP	J	14	1	TBD	Call TI	Level-NC-NC-NC
SN54HC05J	ACTIVE	CDIP	J	14	1	TBD	Call TI	Level-NC-NC-NC
SN74HC05D	ACTIVE	SOIC	D	14	50	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM
SN74HC05DBR	ACTIVE	SSOP	DB	14	2000	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM
SN74HC05DBRE4	ACTIVE	SSOP	DB	14	2000	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM
SN74HC05DE4	ACTIVE	SOIC	D	14	50	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM
SN74HC05DG4	ACTIVE	SOIC	D	14	50	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM
SN74HC05DR	ACTIVE	SOIC	D	14	2500	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM
SN74HC05DRE4	ACTIVE	SOIC	D	14	2500	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM
SN74HC05DRG4	ACTIVE	SOIC	D	14	2500	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM
SN74HC05DT	ACTIVE	SOIC	D	14	250	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM
SN74HC05DTE4	ACTIVE	SOIC	D	14	250	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM
SN74HC05N	ACTIVE	PDIP	N	14	25	Pb-Free (RoHS)	CU NIPDAU	Level-NC-NC-NC
SN74HC05N3	OBSOLETE	PDIP	N	14		TBD	Call TI	Call TI
SN74HC05NE4	ACTIVE	PDIP	N	14	25	Pb-Free (RoHS)	CU NIPDAU	Level-NC-NC-NC
SN74HC05NSR	ACTIVE	SO	NS	14	2000	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM
SN74HC05NSRE4	ACTIVE	SO	NS	14	2000	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM
SN74HC05PWG4	ACTIVE	TSSOP	PW	14	90	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM
SN74HC05PWRG4	ACTIVE	TSSOP	PW	14	2000	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM
SN74HC05PWT	ACTIVE	TSSOP	PW	14	250	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM
SN74HC05PWTE4	ACTIVE	TSSOP	PW	14	250	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM
SNJ54HC05FK	ACTIVE	LCCC	FK	20	1	TBD	Call TI	Level-NC-NC-NC
SNJ54HC05J	ACTIVE	CDIP	J	14	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.

(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:
- All linear dimensions are in inches (millimeters).
  - This drawing is subject to change without notice.
  - This package is hermetically sealed with a ceramic lid using glass frit.
  - Index point is provided on cap for terminal identification only on press ceramic glass frit seal only.
  - Falls within MIL STD 1835 GDIP1-T14, GDIP1-T16, GDIP1-T18 and GDIP1-T20.

FK (S-CQCC-N\*\*)

LEADLESS CERAMIC CHIP CARRIER

28 TERMINAL SHOWN



4040140/D 10/96

- 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.

D (R-PDSO-G14)

PLASTIC SMALL-OUTLINE PACKAGE



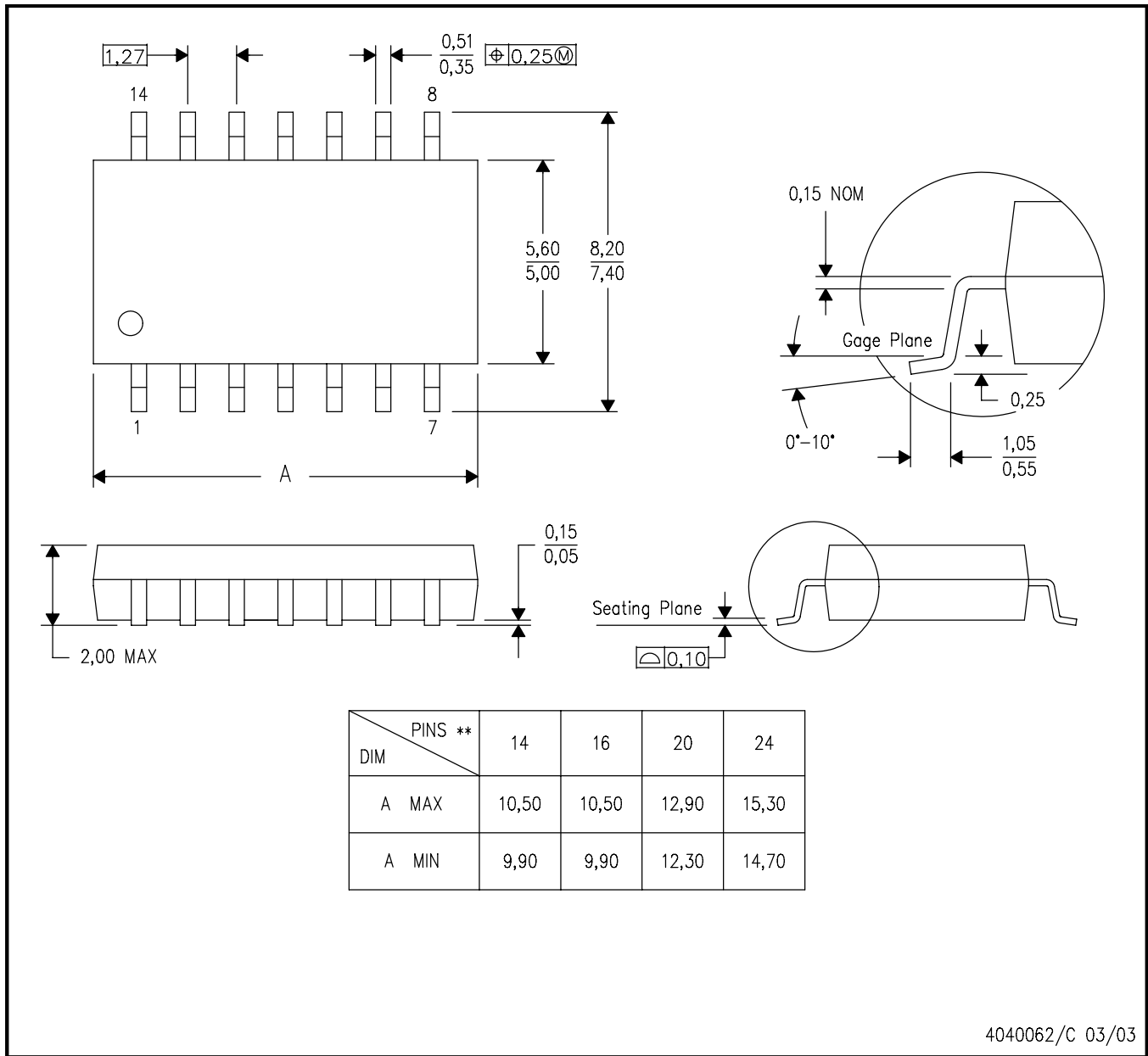
- NOTES:
- A. All linear dimensions are in inches (millimeters).
  - B. This drawing is subject to change without notice.
  - C. Body dimensions do not include mold flash or protrusion not to exceed 0.006 (0,15).
  - D. Falls within JEDEC MS-012 variation AB.

# 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.



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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clear gif

### SN74HC05, Status: ACTIVE

Hex Inverters With Open-Drain Outputs



clear gif

<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: Inverting Buffers and Drivers

#### Support

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

### Datasheet



Download Datasheet

SN54HC05, SN74HC05 (Rev. D) (sn74hc05.pdf, 442 KB)  
28 Jul 2003 [Download](#)

	SN54HC05	SN74HC05
<b>Voltage Nodes(V)</b>	6, 5, 2	6, 5, 2
<b>No. of Gates</b>	6	6
<b>Vcc range(V)</b>	2.0 to 6.0	2.0 to 6.0
<b>Input Level</b>	CMOS	CMOS
<b>Output Level</b>	CMOS	CMOS
<b>Output Drive(mA)</b>		- /4
<b>tpd max(ns)</b>		25
<b>Static Current</b>		0.02
	<a href="#">Samples</a>	<a href="#">Samples</a>
	<a href="#">Inventory</a>	<a href="#">Inventory</a>

### Product Information

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

- Wide Operating Voltage Range of 2 V to 6 V
- Outputs Can Drive Up to 10 LSTTL Loads
- Low Power Consumption, 20-µA Max I<sub>CC</sub>
- Typical t<sub>pd</sub> = 8 ns
- ±4-mA Output Drive at 5 V
- Low Input Current of 1 µA Max

### Description

The 'HC05 devices contain six independent inverters. They perform the Boolean function  $Y = A \text{ in}$  positive logic. The open-drain outputs require pullup resistors to perform correctly. They may be connected to other open-drain outputs to implement active-low wired-OR or active-high wired-AND functions.

**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
SN74HC05D	ACTIVE	-40 to 85	0.15   1KU	SOIC (D)   14	View	50	<input type="checkbox"/>	Purchase Samples
SN74HC05DBR	ACTIVE	-40 to 85	0.15   1KU	SSOP (DB)   14	View	2000	<input type="checkbox"/>	Purchase Samples
SN74HC05DBRE4	ACTIVE	-40 to 85	0.15   1KU	SSOP (DB)   14	View	2000	<input type="checkbox"/>	Purchase Samples
SN74HC05DE4	ACTIVE	-40 to 85	0.15   1KU	SOIC (D)   14	View	50	<input type="checkbox"/>	Purchase Samples
SN74HC05DG4	ACTIVE	-40 to 85	0.17   1KU	SOIC (D)   14	View	50	<input type="checkbox"/>	Purchase Samples
SN74HC05DR	ACTIVE	-40 to 85	0.15   1KU	SOIC (D)   14	View	2500	<input type="checkbox"/>	Contact TI Distributor or Sales Office
SN74HC05DRE4	ACTIVE	-40 to 85	0.15   1KU	SOIC (D)   14	View	2500	<input type="checkbox"/>	Request Free Samples
SN74HC05DRG4	ACTIVE	-40 to 85	0.17   1KU	SOIC (D)   14	View	2500	<input type="checkbox"/>	Purchase Samples
SN74HC05DT	ACTIVE	-40 to 85	0.29   1KU	SOIC (D)   14	View	250	<input type="checkbox"/>	Purchase Samples
SN74HC05DTE4	ACTIVE	-40 to 85	0.29   1KU	SOIC (D)   14	View	250	<input type="checkbox"/>	Purchase Samples
SN74HC05N	ACTIVE	-40 to 85	0.23   1KU	PDIP (N)   14	View	25	<input type="checkbox"/>	Contact TI Distributor or Sales Office
SN74HC05N3	OBSOLETE	-40 to 85		PDIP (N)   14	View		<input type="checkbox"/>	Not Available
SN74HC05NE4	ACTIVE	-40 to 85	0.23   1KU	PDIP (N)   14	View	25	<input type="checkbox"/>	Request Free Samples
SN74HC05NSR	ACTIVE	-40 to 85	0.15   1KU	SO (NS)   14	View	2000	<input type="checkbox"/>	Purchase Samples
SN74HC05NSRE4	ACTIVE	-40 to 85	0.15   1KU	SO (NS)   14	View	2000	<input type="checkbox"/>	Purchase Samples
SN74HC05PWG4	ACTIVE	-40 to 85	0.18   1KU	TSSOP (PW)   14	View	90	<input type="checkbox"/>	Purchase Samples
SN74HC05PWRG4	ACTIVE	-40 to 85	0.18   1KU	TSSOP (PW)   14	View	2000	<input type="checkbox"/>	Purchase Samples
SN74HC05PWT	ACTIVE	-40 to 85	0.29   1KU	TSSOP (PW)   14	View	250	<input type="checkbox"/>	Purchase Samples
SN74HC05PWTE4	ACTIVE	-40 to 85	0.29   1KU	TSSOP (PW)   14	View	250	<input type="checkbox"/>	Purchase Samples

**Inventory**

	TI Inventory Status			Reported Distributor Inventory			
SN74HC05D	As of 9:12 AM GMT, 29 Nov 2005			As of 9:12 AM GMT, 29 Nov 2005			
	In Stock	In Progress QTY   Date	Lead Time	Region	Company	In Stock	Purchase
	4000*	>10k   29 Dec	10 Weeks	Americas	DigiKey	398	<input type="text"/>
					Newark InOne	195	<input type="text"/>
				Europe	Abacus Polar	>1k	<input type="text"/>
					Arrow Northern Europe	6	<input type="text"/>
					Avnet-SILICA	>1k	<input type="text"/>
					EBV Elektronik	>1k	<input type="text"/>
					Rutronik	>1k	<input type="text"/>
SN74HC05DBR	As of 9:12 AM GMT, 29 Nov 2005			As of 9:12 AM GMT, 29 Nov 2005			
	In Stock	In Progress QTY   Date	Lead Time	Region	Company	In Stock	Purchase

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Choose a Region





	6000*	653   27 Dec	8 Weeks	None Reported <a href="#">View Distributors</a>			
		555   3 Jan					
		692   10 Jan					
		838   7 Feb					
		>10k   14 Feb					
<b>SN74HC05DBRE4</b>	As of 9:12 AM GMT, 29 Nov 2005			As of 9:12 AM GMT, 29 Nov 2005			
	<b>In Stock</b>	<b>In Progress QTY   Date</b>	<b>Lead Time</b>	<b>Region</b>	<b>Company</b>	<b>In Stock</b>	<b>Purchase</b>
	6000*	653   27 Dec	8 Weeks	None Reported <a href="#">View Distributors</a>			
		555   3 Jan					
		692   10 Jan					
		838   7 Feb					
		>10k   14 Feb					
<b>SN74HC05DE4</b>	As of 9:12 AM GMT, 29 Nov 2005			As of 9:12 AM GMT, 29 Nov 2005			
	<b>In Stock</b>	<b>In Progress QTY   Date</b>	<b>Lead Time</b>	<b>Region</b>	<b>Company</b>	<b>In Stock</b>	<b>Purchase</b>
	4000*	>10k   29 Dec	10 Weeks	None Reported <a href="#">View Distributors</a>			
<b>SN74HC05DG4</b>	As of 9:12 AM GMT, 29 Nov 2005			As of 9:12 AM GMT, 29 Nov 2005			
	<b>In Stock</b>	<b>In Progress QTY   Date</b>	<b>Lead Time</b>	<b>Region</b>	<b>Company</b>	<b>In Stock</b>	<b>Purchase</b>
	0*	>10k   30 Jan	10 Weeks	None Reported <a href="#">View Distributors</a>			
<b>SN74HC05DR</b>	As of 9:12 AM GMT, 29 Nov 2005			As of 9:12 AM GMT, 29 Nov 2005			
	<b>In Stock</b>	<b>In Progress QTY   Date</b>	<b>Lead Time</b>	<b>Region</b>	<b>Company</b>	<b>In Stock</b>	<b>Purchase</b>
	0*	2266   1 Dec	10 Weeks	Americas	Avnet	>1k	<input type="text"/>
		234   5 Dec		Europe	Arrow Northern Europe	>1k	<input type="text"/>
		>10k   8 Dec			EBV Elektronik	2	<input type="text"/>
<b>SN74HC05DRE4</b>	As of 9:12 AM GMT, 29 Nov 2005			As of 9:12 AM GMT, 29 Nov 2005			
	<b>In Stock</b>	<b>In Progress QTY   Date</b>	<b>Lead Time</b>	<b>Region</b>	<b>Company</b>	<b>In Stock</b>	<b>Purchase</b>
	0*	2266   1 Dec	10 Weeks	None Reported <a href="#">View Distributors</a>			
		234   5 Dec					
		>10k   8 Dec					
<b>SN74HC05DRG4</b>	As of 9:12 AM GMT, 29 Nov 2005			As of 9:12 AM GMT, 29 Nov 2005			
	<b>In Stock</b>	<b>In Progress QTY   Date</b>	<b>Lead Time</b>	<b>Region</b>	<b>Company</b>	<b>In Stock</b>	<b>Purchase</b>
	0*	>10k   30 Jan	10 Weeks	None Reported <a href="#">View Distributors</a>			
<b>SN74HC05DT</b>	As of 9:12 AM GMT, 29 Nov 2005			As of 9:12 AM GMT, 29 Nov 2005			
	<b>In Stock</b>	<b>In Progress QTY   Date</b>	<b>Lead Time</b>	<b>Region</b>	<b>Company</b>	<b>In Stock</b>	<b>Purchase</b>
	0*	>10k   6 Mar	14 Weeks	None Reported <a href="#">View Distributors</a>			
<b>SN74HC05DTE4</b>	As of 9:12 AM GMT, 29 Nov 2005			As of 9:12 AM GMT, 29 Nov 2005			
	<b>In Stock</b>	<b>In Progress QTY   Date</b>	<b>Lead Time</b>	<b>Region</b>	<b>Company</b>	<b>In Stock</b>	<b>Purchase</b>
	0*	>10k   6 Mar	14 Weeks	None Reported <a href="#">View Distributors</a>			
<b>SN74HC05N</b>	As of 9:12 AM GMT, 29 Nov 2005			As of 9:12 AM GMT, 29 Nov 2005			
	<b>In Stock</b>	<b>In Progress QTY   Date</b>	<b>Lead Time</b>	<b>Region</b>	<b>Company</b>	<b>In Stock</b>	<b>Purchase</b>

	>10k*	375   12 Jan	10 Weeks	Americas	Avnet	>1k	<input type="text"/>
		9975   19 Jan			DigiKey	444	<input type="text"/>
					Newark InOne	>1k	<input type="text"/>
				Asia	P&S	163	<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"/>
<b>SN74HC05NE4</b>	As of 9:12 AM GMT, 29 Nov 2005			As of 9:12 AM GMT, 29 Nov 2005			
	<b>In Stock</b>	<b>In Progress QTY   Date</b>	<b>Lead Time</b>	<b>Region</b>	<b>Company</b>	<b>In Stock</b>	<b>Purchase</b>
	>10k*	375   12 Jan	10 Weeks	None Reported <a href="#">View Distributors</a>			
		9975   19 Jan					
<b>SN74HC05NSR</b>	As of 9:12 AM GMT, 29 Nov 2005			As of 9:12 AM GMT, 29 Nov 2005			
	<b>In Stock</b>	<b>In Progress QTY   Date</b>	<b>Lead Time</b>	<b>Region</b>	<b>Company</b>	<b>In Stock</b>	<b>Purchase</b>
	0*	395   6 Jan	10 Weeks	None Reported <a href="#">View Distributors</a>			
		266   13 Jan					
		632   20 Jan					
		978   27 Jan					
		1976   17 Feb					
<b>SN74HC05NSRE4</b>	As of 9:12 AM GMT, 29 Nov 2005			As of 9:12 AM GMT, 29 Nov 2005			
	<b>In Stock</b>	<b>In Progress QTY   Date</b>	<b>Lead Time</b>	<b>Region</b>	<b>Company</b>	<b>In Stock</b>	<b>Purchase</b>
	0*	395   6 Jan	10 Weeks	None Reported <a href="#">View Distributors</a>			
		266   13 Jan					
		632   20 Jan					
		978   27 Jan					
		1976   17 Feb					
<b>SN74HC05PWG4</b>	As of 9:12 AM GMT, 29 Nov 2005			As of 9:12 AM GMT, 29 Nov 2005			
	<b>In Stock</b>	<b>In Progress QTY   Date</b>	<b>Lead Time</b>	<b>Region</b>	<b>Company</b>	<b>In Stock</b>	<b>Purchase</b>
	0*		16 Weeks	None Reported <a href="#">View Distributors</a>			
<b>SN74HC05PWRG4</b>	As of 9:12 AM GMT, 29 Nov 2005			As of 9:12 AM GMT, 29 Nov 2005			
	<b>In Stock</b>	<b>In Progress QTY   Date</b>	<b>Lead Time</b>	<b>Region</b>	<b>Company</b>	<b>In Stock</b>	<b>Purchase</b>
	0*		16 Weeks	None Reported <a href="#">View Distributors</a>			
<b>SN74HC05PWT</b>	As of 9:12 AM GMT, 29 Nov 2005			As of 9:12 AM GMT, 29 Nov 2005			
	<b>In Stock</b>	<b>In Progress QTY   Date</b>	<b>Lead Time</b>	<b>Region</b>	<b>Company</b>	<b>In Stock</b>	<b>Purchase</b>
	0*		16 Weeks	Americas	Avnet	250	<input type="text"/>
<b>SN74HC05PWTE4</b>	As of 9:12 AM GMT, 29 Nov 2005			As of 9:12 AM GMT, 29 Nov 2005			
	<b>In Stock</b>	<b>In Progress QTY   Date</b>	<b>Lead Time</b>	<b>Region</b>	<b>Company</b>	<b>In Stock</b>	<b>Purchase</b>
	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.

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## Quality & Lead (Pb)-Free Data

Device	Product Content			MTBF/FIT Rate	
	Eco Plan*	Lead/Ball Finish	MSL Rating/Peak Reflow	Details	Details
SN74HC05D <input type="checkbox"/>	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM	<a href="#">View</a>	<a href="#">View</a>
SN74HC05DBR <input type="checkbox"/>	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM	<a href="#">View</a>	<a href="#">View</a>
SN74HC05DBRE4 <input type="checkbox"/>	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM	<a href="#">View</a>	<a href="#">View</a>
SN74HC05DE4 <input type="checkbox"/>	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM	<a href="#">View</a>	<a href="#">View</a>
SN74HC05DG4 <input type="checkbox"/>	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM	<a href="#">View</a>	<a href="#">View</a>
SN74HC05DR <input type="checkbox"/>	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM	<a href="#">View</a>	<a href="#">View</a>
SN74HC05DRE4 <input type="checkbox"/>	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM	<a href="#">View</a>	<a href="#">View</a>
SN74HC05DRG4 <input type="checkbox"/>	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM	<a href="#">View</a>	<a href="#">View</a>
SN74HC05DT <input type="checkbox"/>	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM	<a href="#">View</a>	<a href="#">View</a>
SN74HC05DTE4 <input type="checkbox"/>	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM	<a href="#">View</a>	<a href="#">View</a>
SN74HC05N <input type="checkbox"/>	Pb-Free (RoHS)	CU NIPDAU	Level-NC-NC-NC	<a href="#">View</a>	<a href="#">View</a>
SN74HC05NE4 <input type="checkbox"/>	Pb-Free (RoHS)	CU NIPDAU	Level-NC-NC-NC	<a href="#">View</a>	<a href="#">View</a>
SN74HC05NSR <input type="checkbox"/>	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM	<a href="#">View</a>	<a href="#">View</a>
SN74HC05NSRE4 <input type="checkbox"/>	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM	<a href="#">View</a>	<a href="#">View</a>
SN74HC05PWG4 <input type="checkbox"/>	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM	<a href="#">View</a>	<a href="#">View</a>
SN74HC05PWRG4 <input type="checkbox"/>	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM	<a href="#">View</a>	<a href="#">View</a>
SN74HC05PWT <input type="checkbox"/>	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM	<a href="#">View</a>	<a href="#">View</a>
SN74HC05PWTE4 <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.

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## Technical Documents

### Datasheets

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**SN54HC05, SN74HC05 (Rev. D)** (sn74hc05.pdf, 442 KB)

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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](#)

**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)

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

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

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01 Oct 1996 [Abstract](#)

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

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**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)

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

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**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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