

CD74HCx4067 High-Speed CMOS Logic 16-Channel Analog Multiplexer and **Demultiplexer**

1 Features

- Wide analog input voltage range
- Low ON resistance
 - V_{CC} = 4.5V, 70Ω (typ)
 - V_{CC} = 6V, 60Ω (typ)
- Fast switching and propagation speeds
- Break-before-make switching
 - 6ns (typ) at 4.5V
- Available in both narrow- and wide-body plastic packages
- Fanout (over-temperature range)
 - Standard outputs: 10 LSTTL loads
 - Bus driver outputs: 15 LSTTL loads
- Wide operating temperature range: -55°C to +125°C
- Balanced propagation delay and transition times
- Significant power reduction compared to LSTTL logic ICs
- HC types
 - 2V to 6V operation
 - High noise immunity: $N_{IL} = 30\%$, $N_{IH} = 30\%$ of V_{CC} at $V_{CC} = 5V$
- **HCT** types
 - 4.5V to 5.5V operation
 - Direct LSTTL input logic compatibility, V_{IL}= 0.8V (max), $V_{IH} = 2V (min)$
 - CMOS input compatibility, I_I ≤ 1µA at V_{OI}, V_{OH}

2 Applications

- Energy infrastructure
- **Building automation**
- Wireless infrastructure
- **Appliances**
- Data center & enterprise computing
- Retail automation & payment

- Signal gating
- Modulators
- Squelch controls
- demodulators
- choppers
- commutating switches
- Analog-to-digital and digital-to-analog conversions
- Digital control of frequency, impedance, phase, and analog-signal gain

3 Description

The CD74HC4067 and CD74HCT4067 devices are digitally controlled analog switches that use silicongate CMOS technology to achieve operating speeds similar to LSTTL, with the low power consumption of standard CMOS integrated circuits.

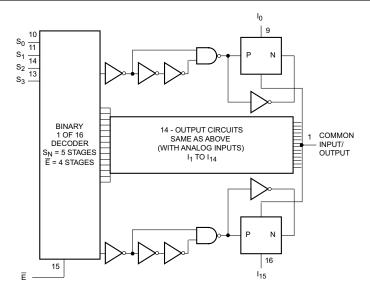
These analog multiplexers and demultiplexers control analog voltages that may vary across the voltage supply range. They are bidirectional switches, thus allowing any analog input to be used as an output and vice-versa. The switches have low on resistance and low off leakages. In addition, these devices have an enable control that, when high, disables all switches to their off state.

Package Information

PART NUMBER	PACKAGE (1)	BODY SIZE (NOM)
CD74HC4067M	SOIC(24)	15.4mm × 10.3mm
CD74HC4067M96	SOIC(24)	15.4mm × 10.3mm
CD74HC4067SM96	SSOP(24)	8.20mm × 7.40mm
CD74HCT4067M	SOIC(24)	15.4mm × 10.3mm
CD74HC4067PW	TSSOP(24)	7.8mm × 6.4mm
CD74HCT4067PW	TSSOP(24)	7.8mm × 6.4mm

For all available packages, see the orderable addendum at the end of the data sheet.





Functional Block Diagram



Table of Contents

1 Features1	13 Analog Channel Specifications11
2 Applications	14 Typical Characteristics12
3 Description	15 Analog Test Circuits13
4 Pin Configuration and Functions4	16 Device and Documentation Support14
4.1 Device Functional Modes5	16.1 Related Documentation14
5 Absolute Maximum Ratings5	16.2 Receiving Notification of Documentation Updates14
6 Thermal Information6	16.3 Support Resources14
7 Recommended Operating Conditions6	16.4 Trademarks14
8 Electrical Characteristics: HC Devices7	16.5 Electrostatic Discharge Caution14
9 Electrical Characteristics: HCT Devices8	16.6 Glossary14
10 HTC Input Loading8	17 Revision History14
11 Switching Characteristics HC9	18 Mechanical, Packaging, and Orderable
12 Switching Characteristics HCT10	Information14



4 Pin Configuration and Functions

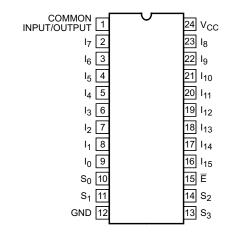


Figure 4-1. N, DW, or DB Packages 24-Pin PDIP, SOIC, or SSOP (Top View)

PI	N	TYPE(1)	DESCRIPTION
NAME	NO.	IYPE(')	DESCRIPTION
COMMON INPUT/ OUTPUT	1	Ю	Common input or output.
I ₇	2	10	Switch input/output
I ₆	3	10	Switch input/output
I ₅	4	Ю	Switch input/output
I ₄	5	Ю	Switch input/output
I ₃	6	10	Switch input/output
l ₂	7	10	Switch input/output
I ₁	8	10	Switch input/output
I ₀	9	10	Switch input/output
S ₀	10	I	Select/Address pin
S ₁	11	I	Select/Address pin
GND	12	Р	Ground pin
S ₃	13	I	Select/Address pin
S ₂	14	I	Select/Address pin
Ē	15	I	Enable for all switches ON/OFF
I ₁₅	16	10	Switch input/output
I ₁₄	17	10	Switch input/output
I ₁₃	18	10	Switch input/output
I ₁₂	19	Ю	Switch input/output
I ₁₁	20	Ю	Switch input/output
I ₁₀	21	Ю	Switch input/output
l ₉	22	Ю	Switch input/output
I ₈	23	Ю	Switch input/output
V _{CC}	24	Р	Power pin

(1) I = input, O = output, P = Power



4.1 Device Functional Modes

Table 4-1. Truth Table

S0	S1	\$2	S 3	Ē	SELECTED CHANNEL
X	Х	Х	Х	1	None
0	0	0	0	0	0
1	0	0	0	0	1
0	1	0	0	0	2
1	1	0	0	0	3
0	0	1	0	0	4
1	0	1	0	0	5
0	1	1	0	0	6
1	1	1	0	0	7
0	0	0	1	0	8
1	0	0	1	0	9
0	1	0	1	0	10
1	1	0	1	0	11
0	0	1	1	0	12
1	0	1	1	0	13
0	1	1	1	0	14
1	1	1	1	0	15

5 Absolute Maximum Ratings

over operating free-air temperature range (unless otherwise noted)(1) (2)

			MIN	MAX	UNIT
V _{CC} HC	DC Supply voltage	DC Supply voltage		7	V
V _{CC} HCT	DC Supply voltage		-0.5	7	V
I _{IK}	DC input diode current	For $V_1 < -0.5V$ or $V_1 > V_{CC} + 0.5V$	-20	20	mA
I _{OK}	DC output diode current	For $V_O < -0.5V$ or $V_O > V_{CC} + -0.5V$	-20	20	mA
I _{CC}	DC V _{CC} or ground current		-50	50	mA
DC Output Source or Sink Current per Output Pin, I _O	Sink er For $V_O > -0.5V$ or $V_O < V_{CC} + -0.5V$		-25	25	mA
T _{JMAX}	Maximum junction temperature (Plastic Package)			150	°C
T _{stg}	Storage temperature		-65	150	°C

⁽¹⁾ Stresses beyond those listed under Absolute Maximum Rating may cause permanent damage to the device. These are stress ratings only, which do not imply functional operation of the device at these or any other conditions beyond those indicated under Recommended Operating Condition. Exposure to absolute-maximum-rated conditions for extended periods may affect device reliability.

(2) All voltages are with respect to ground, unless otherwise specified.



6 Thermal Information

		CD74HCx4067						
	THERMAL METRIC (1)	E (PDIP)	M (SOIC)	SM (SSOP)	PW (TSSOP)	UNIT		
		24 PINS	24 PINS	24 PINS	24 PINS			
$R_{\theta JA}$	Junction-to-ambient thermal resistance	67	84.8	96.2	97.4	°C/W		
R _{θJC(top)}	Junction-to-case (top) thermal resistance	N/A	57.0	60.0	45.0	°C/W		
$R_{\theta JB}$	Junction-to-board thermal resistance	N/A	59.5	65.1	62.7	°C/W		
Ψ_{JT}	Junction-to-top characterization parameter	N/A	29.0	21.1	5.20	°C/W		
Ψ_{JB}	Junction-to-board characterization parameter	N/A	59.0	64.4	62.1	°C/W		

⁽¹⁾ For more information about traditional and new thermal metrics, see the Semiconductor and IC Package Thermal Metrics application report.

7 Recommended Operating Conditions

			MIN	NOM MAX	UNIT
V _{CC}	Supply voltage range (T _A = full package temperature	CD54 and 74HC types	2	6	٧
	range)(2)	CD54 and 74HCT types	4.5	5.5	
V _{IS}	Analog switch I/O voltage		0	V _{CC}	V
T _A	Ambient temperature		- 55	125	°C
		2 V	0	1000	
t _r , t _f	Input rise and fall times	4.5 V	0	500	ns
		6 V	0	400	



8 Electrical Characteristics: HC Devices

Over operating free-air temperature range (unless otherwise noted)

PARAMETER			TEST C	CONDITIONS		MIN	TYP	MAX	UNIT					
Analog Switch														
		V _{IS} (V)	V _I (V)	V _{CC} (V)	T _A									
					25°C	1.5								
				2	-40°C to +85°C	1.5								
					–55°C to +125°C	1.5								
					25°C	3.15								
High Level Input Voltage	V_{IH}			4.5	-40°C to +85°C	3.15			V					
					-55°C to +125°C	3.15								
					25°C	4.2								
				6	-40°C to +85°C	4.2								
					-55°C to +125°C	4.2								
					25°C			0.5						
				2	-40°C to +85°C			0.5						
Low Level Input Voltage					–55°C to +125°C			0.5						
					25°C			1.35						
	V_{IL}			4.5	-40°C to +85°C			1.35	V					
					–55°C to +125°C			1.35						
				6	25°C			1.8						
					-40°C to +85°C			1.8						
					–55°C to +125°C		-	1.8						
					25°C		70	160						
					Ì				4.5	-40°C to +85°C			200	1
							–55°C to +125°C			240				
		V _{CC} or GND	V _{CC} or GND	6	25°C		60	140	Ω					
					-40°C to +85°C			175						
	_				–55°C to +125°C			210						
"ON" Resistance IO = 1mA	R _{ON}				25°C		90	180						
				4.5	-40°C to +85°C			225						
					–55°C to +125°C			270						
		V _{CC} to GND	V _{CC} to GND		25°C		80	160	Ω					
				6	-40°C to +85°C			200						
					–55°C to +125°C			240						
"ON" Resistance Between Any Two				4.5	0.500		10							
Switches	ΔR_{ON}			6	25°C		8.5		Ω					
					25°C			±0.8						
Off-Switch Leakage Current	I _Z	E = V _{CC}	V _{CC} or GND	6	–55°C to 85°C			±8	μA					
-	_				–55°C to 125°C			±8						
					25°C			±0.1						
Input Leakage Current (Any Control)	I _{IL}		V _{CC} or	6	–55°C to 85°C			±1	μΑ					
- , ,	ontrol) I _{IL} GND ⁽¹	'ייטאט (יי		–55°C to 125°C			±1	μΛ						



Over operating free-air temperature range (unless otherwise noted)

PARAMETER TEST CO			ONDITIONS		MIN	TYP	MAX	UNIT	
					25°C			8	
Quiescent Device Current	I_{CC}		V _{CC} or GND	6	–55°C to 85°C			80	μA
					–55°C to 125°C			160	

⁽¹⁾ Any voltage between V_{CC} and GND.

9 Electrical Characteristics: HCT Devices

Over operating free-air temperature range (unless otherwise noted)

PARAMETER			TEST C	ONDITIONS		MIN	TYP	MAX	UNIT
Analog Switch									
		V _{IS} (V)	V _I (V)	V _{CC} (V)	T _A				
					25°C	2			
High Level Input Voltage	V_{IH}				–40°C to +85°C	2			V
				4.5	–55°C to +125°C	2			
				4.5	25°C			0.8	
Low Level Input Voltage	V_{IL}				–40°C to +85°C			0.8	V
					–55°C to +125°C			0.8	
					25°C		70	160	
"ON" Resistance IO = 1mA		V _{CC} or GND	V _{CC} or GND		–40°C to +85°C			200	Ω
	R _{ON}			4.5	–55°C to +125°C			240	
	IXON		V _{CC} to GND	4.5	25°C		90	180	
		V _{CC} to GND			–40°C to +85°C			225	Ω
					–55°C to +125°C			270	
"ON" Resistance Between Any Two Switches	ΔR _{ON}			4.5	25°C		10		Ω
					25°C			±0.8	
Off-Switch Leakage Current	I_Z	$\overline{E} = V_{CC}$	V _{CC} or GND	5.5	–55°C to 85°C			±8	⊣ ' I
					–55°C to 125°C			±8	
					25°C			±0.1	
Input Leakage Current (Any Control)	$I_{\rm IL}$		V _{CC} or GND	5.5	–55°C to 85°C			±1	μΑ
					–55°C to 125°C			±1	
					25°C			8	
Quiescent Device Current	I_{CC}		V _{CC} or GND	5.5	–55°C to 85°C			80	μA
					–55°C to 125°C			160	
Additional Quiescent Device Current					25°C		100	360	
Per Input Pin: 1 Unit Load	▲I _{CC}		V _{CC} - 2.1	4.5 to 5.5	–55°C to 85°C			450	
					–55°C to 125°C			490	

⁽¹⁾ For dual-supply systems theoretical worst case (V_1 = 2.4V, V_{CC} = 5.5V) specification is 1.8mA

10 HTC Input Loading

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

INPUT	UNIT LOAD(1)
$S_0 - S_3$	0.5
Ē	0.3

(1) Unit Load is the ΔI_{CC} limit specified in Section 9 (for example, 360- μ A max at 25°C.



11 Switching Characteristics HC

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

	Parameter	Test	Conditions	C _L (pF)	MIN NOM	MAX	UNIT
		V _{CC} (V)	T _A				
			25°C			75	
		2	-40°C to 85°C			95	
			-55°C to 125°C			110	
Propagati			25°C	-		15	
on Delay		4.5	-40°C to 85°C	50		19	
Time Switch In	t _{PHL} , t _{PLH}		-55°C to 125°C	-		22	ns
to Out			25°C			13	
		6	-40°C to 85°C			16	
			-55°C to 125°C	-		19	
		5	25°C	15	6		
			25°C			275	
		2	-40°C to 85°C			345	
			-55°C to 125°C			415	
			25°C	-		55	
Switch _		4.5	-40°C to 85°C	50		69	
Turn On E to Out	t _{PZH} , t _{PZL}		-55°C to 125°C			83	ns
to Out			25°C			47	
		6	-40°C to 85°C			59	
			-55°C to 125°C			71	
		5	25°C		23		
			25°C			300	
		2	-40°C to 85°C			375	-
			-55°C to 125°C			450	
			25°C	-		60	
Switch		4.5	-40°C to 85°C	50		75	
Turn On Sn to Out	t _{PZH} , t _{PZL}		-55°C to 125°C	1		90	ns
On to Out			25°C			51	
		6	-40°C to 85°C			64	
			-55°C to 125°C			76	
		5	25°C	15	25		
			25°C			275	
		2	-40°C to 85°C	-		345	
			-55°C to 125°C			415	
			25°C	_		55	
Switch		4.5	-40°C to 85°C	50		69	
Turn Off! E to Out	t _{PHZ} , t _{PLZ}		-55°C to 125°C			83	ns
L to Out			25°C	-		47	
		6	-40°C to 85°C	-		59	
		ľ	-55°C to 125°C			71	
		5	25°C	15	23		



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

	Parameter	Test Co	nditions	C _L (pF)	MIN	NOM	MAX	UNIT
			25°C				290	
		2	-40°C to 85°C				365	
			-55°C to 125°C				435	
			25°C				58	
Switch		4.5	-40°C to 85°C	50			73	
Turn Off Sn to Out	t _{PHZ} , t _{PLZ}		-55°C to 125°C				87	ns
			25°C				49	
		6	-40°C to 85°C				62	
			-55°C to 125°C				74	
		5	25°C	15		21		
Input			25°C				10	
(Control) Capacitan	C_1		-40°C to 85°C				10	
се			-55°C to 125°C				10	
C _{PD} Power dissipatio n capacitan ce(1)	C _{PD}	5	25°C			93		pF

12 Switching Characteristics HCT

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

	Parameter	Test	Conditions	C _L (pF)	MIN	NOM	MAX	UNIT	
		V _{CC} (V)	T _A						
Propagati			25°C				15		
on Delay		4.5	-40°C to 85°C	50			19		
Time Switch In	t _{PHL} , t _{PLH}		-55°C to 125°C				22	ns	
to Out		5	25°C	15		6			
			25°C				60		
Switch		4.5	-40°C to 85°C	50			75		
Turn On E t _P to Out	IPZH, IPZL		-55°C to 125°C				90	ns	
		5	25°C	15		25			
			25°C				60		
Switch Turn On	t _{PZH} , t _{PZL}	4.5	-40°C to 85°C	50			75	no	
Sn to Out			-55°C to 125°C				90	ns	
		5	25°C	15		25			
			25°C				55		
Switch Turn Off!		4.5	-40°C to 85°C	50		69 83		no	
E to Out	t_{PHZ} , t_{PLZ}		-55°C to 125°C					ns	
		5	25°C	15		23			
	t _{PHZ} , t _{PLZ}		25°C				58		
Switch Turn Off		4.5	-40°C to 85°C	50			73		
Sn to Out			-55°C to 125°C				87	ns	
		5	25°C	15		21			



www.ti.com

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

	Parameter	Test Co	nditions	C _L (pF)	MIN	NOM	MAX	UNIT
Input			25°C				10	
(Control) Capacitan	C ₁		-40°C to 85°C				10	
се			-55°C to 125°C				10	
C _{PD} Power dissipatio n capacitan ce(1)	C _{PD}	5	25°C			96		pF

13 Analog Channel Specifications

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

Parameter	Test Co	nditions	V _{CC} (V)	НС	нст	UNIT
Switch Frequency Response Bandwidth at -3dB			4.5	89	89	MHz
Total Harmonic Distortion	1kHz, V _{IS} = 4V _{PP}		4.5	0.051	0.051	%
Switch "OFF" signal feedthrough			4.5	-75	-75	dB
C _I Switch input capacitance				5	5	pF
C _{COM} Common Capacitance				50	50	pF



14 Typical Characteristics

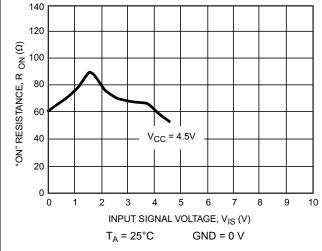


Figure 14-1. Typical ON Resistance vs Input Signal Voltage

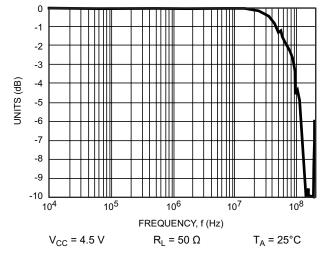


Figure 14-2. Typical Switch Frequency Response

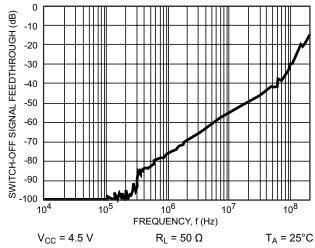


Figure 14-3. Typical Switch-Off Signal Feedthrough vs Frequency



15 Analog Test Circuits

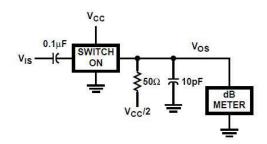


Figure 15-1. Frequency Response Test Circuit

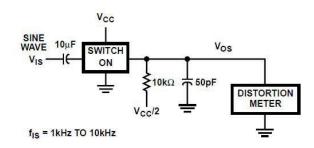


Figure 15-2. Sine Wave Distortion Test Circuit

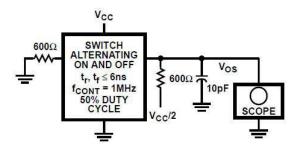


Figure 15-3. Control-to-Switch Feedthrough Noise **Test Circuit**

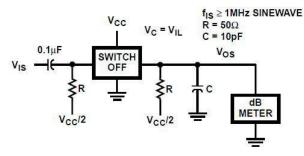


Figure 15-4. Switch Off Signal Feedthrough Test Circuit

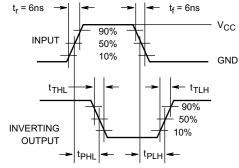
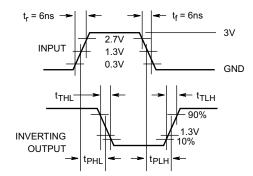


Figure 15-5. HC Transition Times and Propagation Figure 15-6. HCT Transition Times and Propagation **Delay Times, Combination Logic**



Delay Times, Combination Logic

16 Device and Documentation Support

16.1 Related Documentation

Texas Instruments, High-Speed CMOS Logic 16-Channel Analog Multiplexer/Demultiplexer

16.2 Receiving Notification of Documentation Updates

To receive notification of documentation updates, navigate to the device product folder on ti.com. Click on *Notifications* to register and receive a weekly digest of any product information that has changed. For change details, review the revision history included in any revised document.

16.3 Support Resources

TI E2E[™] support forums are an engineer's go-to source for fast, verified answers and design help — straight from the experts. Search existing answers or ask your own question to get the quick design help you need.

Linked content is provided "AS IS" by the respective contributors. They do not constitute TI specifications and do not necessarily reflect TI's views; see TI's Terms of Use.

16.4 Trademarks

TI E2E[™] is a trademark of Texas Instruments.

All trademarks are the property of their respective owners.

16.5 Electrostatic Discharge Caution



This integrated circuit can be damaged by ESD. Texas Instruments recommends that all integrated circuits be handled with appropriate precautions. Failure to observe proper handling and installation procedures can cause damage.

ESD damage can range from subtle performance degradation to complete device failure. Precision integrated circuits may be more susceptible to damage because very small parametric changes could cause the device not to meet its published specifications.

16.6 Glossary

TI Glossary

This glossary lists and explains terms, acronyms, and definitions.

17 Revision History

NOTE: Page numbers for previous revisions may differ from page numbers in the current version.

Changes from Revision C (November 2003) to Revision D (December 2024)

Page

Updated Applications, Pin Configuration and Functions section, ESD Ratings table, Thermal Information table, Detailed Description section, Application and Implementation section, Power Supply Recommendations section, Layout section, Device and Documentation Support section, and Mechanical, Packaging, and Orderable Information section.

18 Mechanical, Packaging, and Orderable Information

The following pages include mechanical, packaging, and orderable information. This information is the most current data available for the designated devices. This data is subject to change without notice and revision of this document. For browser-based versions of this data sheet, refer to the left-hand navigation.

www.ti.com 27-Nov-2025

PACKAGING INFORMATION

Orderable part number	Status	Material type	Package Pins	Package qty Carrier	RoHS	Lead finish/ Ball material	MSL rating/ Peak reflow	Op temp (°C)	Part marking (6)
CD74HC4067M96	Active	Production	SOIC (DW) 24	2000 LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-55 to 125	HC4067M
CD74HC4067M96.A	Active	Production	SOIC (DW) 24	2000 LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-55 to 125	HC4067M
CD74HC4067PWR	Active	Production	TSSOP (PW) 24	2000 LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 125	HC4067
CD74HC4067PWR.A	Active	Production	TSSOP (PW) 24	2000 LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 125	HC4067
CD74HC4067RGYR	Active	Production	VQFN (RGY) 24	3000 LARGE T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 125	HC4067
CD74HC4067RGYR.A	Active	Production	VQFN (RGY) 24	3000 LARGE T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 125	HC4067
CD74HC4067SM96	Active	Production	SSOP (DB) 24	2000 LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-55 to 125	HP4067
CD74HC4067SM96.A	Active	Production	SSOP (DB) 24	2000 LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-55 to 125	HP4067
CD74HC4067SM96E4	Active	Production	SSOP (DB) 24	2000 LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-55 to 125	HP4067
CD74HC4067SM96G4	Active	Production	SSOP (DB) 24	2000 LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-55 to 125	HP4067
CD74HCT4067DGSR	Active	Production	VSSOP (DGS) 24	5000 LARGE T&R	-	FULL NIPDAU	Level-1-260C-UNLIM	-40 to 125	HT4067
CD74HCT4067M	Active	Production	SOIC (DW) 24	25 TUBE	Yes	NIPDAU	Level-1-260C-UNLIM	-55 to 125	HCT4067M
CD74HCT4067M.A	Active	Production	SOIC (DW) 24	25 TUBE	Yes	NIPDAU	Level-1-260C-UNLIM	-55 to 125	HCT4067M
CD74HCT4067ME4	Active	Production	SOIC (DW) 24	25 TUBE	Yes	NIPDAU	Level-1-260C-UNLIM	-55 to 125	HCT4067M
CD74HCT4067MG4	Active	Production	SOIC (DW) 24	25 TUBE	Yes	NIPDAU	Level-1-260C-UNLIM	-55 to 125	HCT4067M
CD74HCT4067PWR	Active	Production	TSSOP (PW) 24	3000 LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 125	HCT4067
CD74HCT4067PWR.A	Active	Production	TSSOP (PW) 24	3000 LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 125	HCT4067
CD74HCT4067RGYR	Active	Production	VQFN (RGY) 24	3000 LARGE T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 125	HCT4067
CD74HCT4067RGYR.A	Active	Production	VQFN (RGY) 24	3000 LARGE T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 125	HCT4067

⁽¹⁾ Status: For more details on status, see our product life cycle.

⁽²⁾ **Material type:** When designated, preproduction parts are prototypes/experimental devices, and are not yet approved or released for full production. Testing and final process, including without limitation quality assurance, reliability performance testing, and/or process qualification, may not yet be complete, and this item is subject to further changes or possible discontinuation. If available for ordering, purchases will be subject to an additional waiver at checkout, and are intended for early internal evaluation purposes only. These items are sold without warranties of any kind.

⁽³⁾ RoHS values: Yes, No, RoHS Exempt. See the TI RoHS Statement for additional information and value definition.

⁽⁴⁾ Lead finish/Ball material: Parts may have multiple material finish options. Finish options are separated by a vertical ruled line. Lead finish/Ball material values may wrap to two lines if the finish value exceeds the maximum column width.

PACKAGE OPTION ADDENDUM

www.ti.com 27-Nov-2025

(5) MSL rating/Peak reflow: The moisture sensitivity level ratings and peak solder (reflow) temperatures. In the event that a part has multiple moisture sensitivity ratings, only the lowest level per JEDEC standards is shown. Refer to the shipping label for the actual reflow temperature that will be used to mount the part to the printed circuit board.

(6) Part marking: There may be an additional marking, which relates to the logo, the lot trace code information, or the environmental category of the part.

Multiple part markings will be inside parentheses. Only one part marking contained in parentheses and separated by a "~" will appear on a part. If a line is indented then it is a continuation of the previous line and the two combined represent the entire part marking for that device.

Important Information and Disclaimer: The information provided on this page represents TI's knowledge and belief as of the date that it is provided. TI bases its knowledge and belief on information provided by third parties, and makes no representation or warranty as to the accuracy of such information. Efforts are underway to better integrate information from third parties. TI has taken and continues to take reasonable steps to provide representative and accurate information but may not have conducted destructive testing or chemical analysis on incoming materials and chemicals. TI and TI suppliers consider certain information to be proprietary, and thus CAS numbers and other limited information may not be available for release.

In no event shall TI's liability arising out of such information exceed the total purchase price of the TI part(s) at issue in this document sold by TI to Customer on an annual basis.

OTHER QUALIFIED VERSIONS OF CD74HC4067, CD74HCT4067:

Automotive: CD74HC4067-Q1, CD74HCT4067-Q1

NOTE: Qualified Version Definitions:

Automotive - Q100 devices qualified for high-reliability automotive applications targeting zero defects

PACKAGE MATERIALS INFORMATION

www.ti.com 28-Nov-2025

TAPE AND REEL INFORMATION





A0	Dimension designed to accommodate the component width
В0	Dimension designed to accommodate the component length
K0	Dimension designed to accommodate the component thickness
W	Overall width of the carrier tape
P1	Pitch between successive cavity centers

QUADRANT ASSIGNMENTS FOR PIN 1 ORIENTATION IN TAPE



*All dimensions are nominal

Device	Package Type	Package Drawing		SPQ	Reel Diameter (mm)	Reel Width W1 (mm)	A0 (mm)	B0 (mm)	K0 (mm)	P1 (mm)	W (mm)	Pin1 Quadrant
CD74HC4067M96	SOIC	DW	24	2000	330.0	24.4	10.75	15.7	2.7	12.0	24.0	Q1
CD74HC4067PWR	TSSOP	PW	24	2000	330.0	16.4	6.95	8.3	1.6	8.0	16.0	Q1
CD74HC4067RGYR	VQFN	RGY	24	3000	330.0	12.4	3.8	5.8	1.2	8.0	12.0	Q1
CD74HC4067SM96	SSOP	DB	24	2000	330.0	16.4	8.2	8.8	2.5	12.0	16.0	Q1
CD74HCT4067DGSR	VSSOP	DGS	24	5000	330.0	16.4	5.44	6.4	1.45	8.0	16.0	Q1
CD74HCT4067PWR	TSSOP	PW	24	3000	330.0	16.4	6.95	8.3	1.6	8.0	16.0	Q1
CD74HCT4067RGYR	VQFN	RGY	24	3000	330.0	12.4	3.8	5.8	1.2	8.0	12.0	Q1



www.ti.com 28-Nov-2025



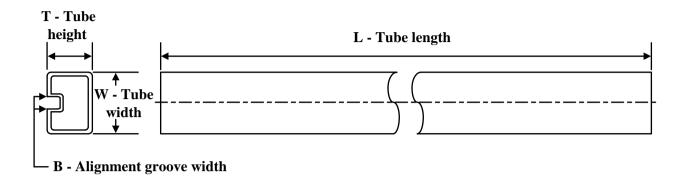
*All dimensions are nominal

Device	Package Type	Package Drawing	Pins	SPQ	Length (mm)	Width (mm)	Height (mm)
CD74HC4067M96	SOIC	DW	24	2000	350.0	350.0	43.0
CD74HC4067PWR	TSSOP	PW	24	2000	353.0	353.0	32.0
CD74HC4067RGYR	VQFN	RGY	24	3000	367.0	367.0	35.0
CD74HC4067SM96	SSOP	DB	24	2000	353.0	353.0	32.0
CD74HCT4067DGSR	VSSOP	DGS	24	5000	353.0	353.0	32.0
CD74HCT4067PWR	TSSOP	PW	24	3000	353.0	353.0	32.0
CD74HCT4067RGYR	VQFN	RGY	24	3000	367.0	367.0	35.0

PACKAGE MATERIALS INFORMATION

www.ti.com 28-Nov-2025

TUBE



*All dimensions are nominal

Device	Package Name	Package Type	Pins	SPQ	L (mm)	W (mm)	T (µm)	B (mm)
CD74HCT4067M	DW	SOIC	24	25	506.98	12.7	4826	6.6
CD74HCT4067M.A	DW	SOIC	24	25	506.98	12.7	4826	6.6
CD74HCT4067ME4	DW	SOIC	24	25	506.98	12.7	4826	6.6
CD74HCT4067MG4	DW	SOIC	24	25	506.98	12.7	4826	6.6



SMALL OUTLINE PACKAGE



NOTES:

- 1. All linear dimensions are in millimeters. Any dimensions in parenthesis are for reference only. Dimensioning and tolerancing per ASME Y14.5M.

 2. This drawing is subject to change without notice.

 3. This dimension does not include mold flash, protrusions, or gate burrs. Mold flash, protrusions, or gate burrs shall not
- exceed 0.15 mm per side.
- 4. This dimension does not include interlead flash. Interlead flash shall not exceed 0.25 mm per side.
- 5. Reference JEDEC registration MO-153.



SMALL OUTLINE PACKAGE



NOTES: (continued)

6. Publication IPC-7351 may have alternate designs.

7. Solder mask tolerances between and around signal pads can vary based on board fabrication site.



SMALL OUTLINE PACKAGE



NOTES: (continued)

- 8. Laser cutting apertures with trapezoidal walls and rounded corners may offer better paste release. IPC-7525 may have alternate design recommendations.
- 9. Board assembly site may have different recommendations for stencil design.



DW (R-PDSO-G24)

PLASTIC SMALL OUTLINE



NOTES: A. All linear dimensions are in inches (millimeters). Dimensioning and tolerancing per ASME Y14.5M-1994.

- 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 AD.



DB (R-PDSO-G**)

PLASTIC SMALL-OUTLINE

28 PINS SHOWN



NOTES: A. All linear dimensions are in millimeters.

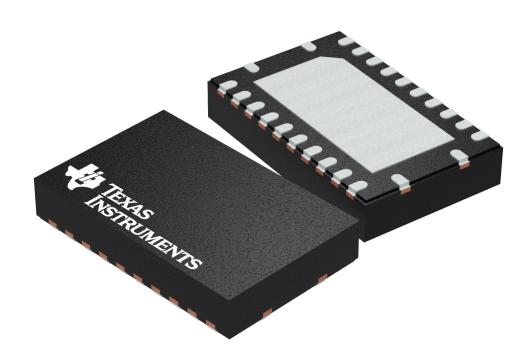
B. This drawing is subject to change without notice.

C. Body dimensions do not include mold flash or protrusion not to exceed 0,15.

D. Falls within JEDEC MO-150

5.5 x 3.5 mm, 0.5 mm pitch

PLASTIC QUAD FLATPACK - NO LEAD

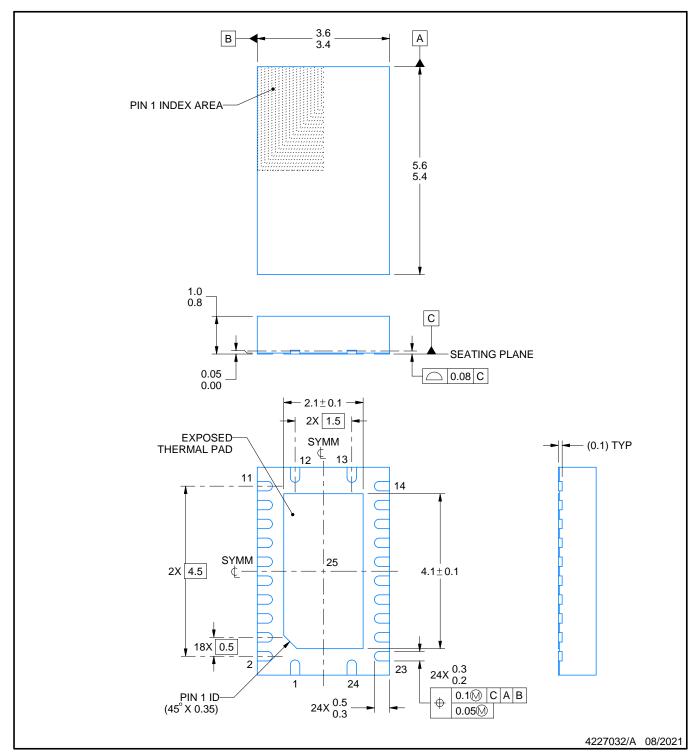


Images above are just a representation of the package family, actual package may vary. Refer to the product data sheet for package details.





PLASTIC QUAD FLATPACK - NO LEAD

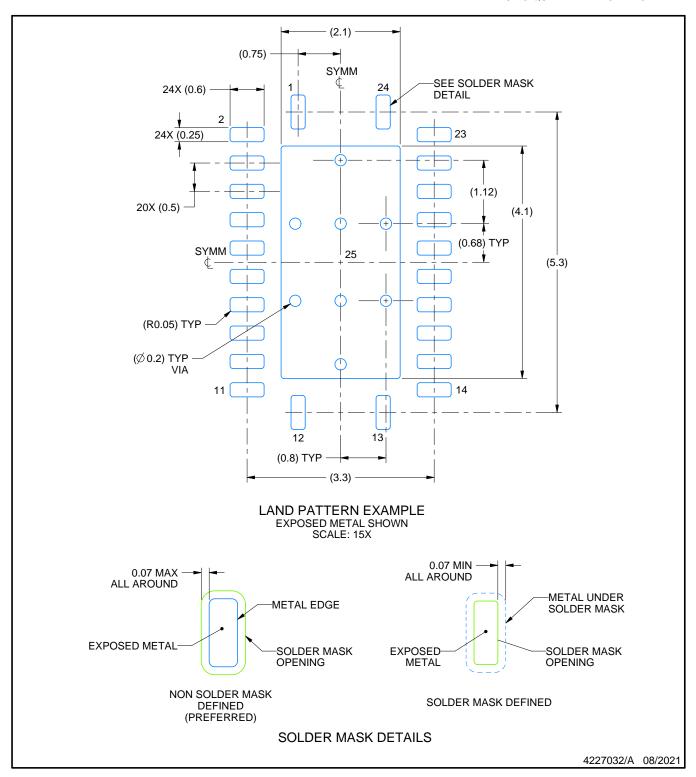


NOTES:

- 1. All linear dimensions are in millimeters. Any dimensions in parenthesis are for reference only. Dimensioning and tolerancing per ASME Y14.5M.
 2. This drawing is subject to change without notice.
- 3. The package thermal pad must be soldered to the printed circuit board for thermal and mechanical performance.



PLASTIC QUAD FLATPACK - NO LEAD

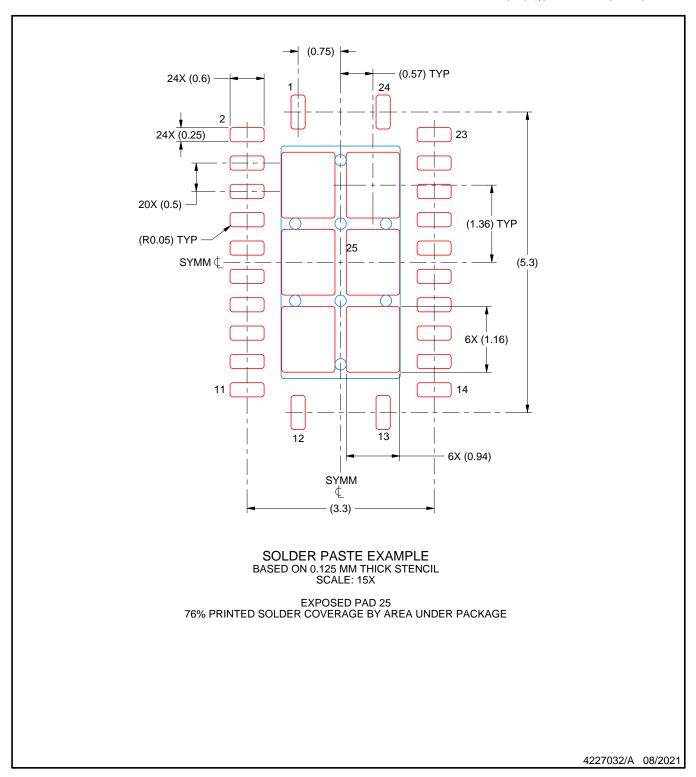


NOTES: (continued)

- 4. This package is designed to be soldered to a thermal pad on the board. For more information, see Texas Instruments literature number SLUA271 (www.ti.com/lit/slua271).
- 5. Vias are optional depending on application, refer to device data sheet. If any vias are implemented, refer to their locations shown on this view. It is recommended that vias under paste be filled, plugged or tented.



PLASTIC QUAD FLATPACK - NO LEAD



NOTES: (continued)

6. Laser cutting apertures with trapezoidal walls and rounded corners may offer better paste release. IPC-7525 may have alternate design recommendations.



IMPORTANT NOTICE AND DISCLAIMER

TI PROVIDES TECHNICAL AND RELIABILITY DATA (INCLUDING DATASHEETS), DESIGN RESOURCES (INCLUDING REFERENCE DESIGNS), APPLICATION OR OTHER DESIGN ADVICE, WEB TOOLS, SAFETY INFORMATION, AND OTHER RESOURCES "AS IS" AND WITH ALL FAULTS, AND DISCLAIMS ALL WARRANTIES, EXPRESS AND IMPLIED, INCLUDING WITHOUT LIMITATION ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR NON-INFRINGEMENT OF THIRD PARTY INTELLECTUAL PROPERTY RIGHTS.

These resources are intended for skilled developers designing with TI products. You are solely responsible for (1) selecting the appropriate TI products for your application, (2) designing, validating and testing your application, and (3) ensuring your application meets applicable standards, and any other safety, security, regulatory or other requirements.

These resources are subject to change without notice. TI grants you permission to use these resources only for development of an application that uses the TI products described in the resource. Other reproduction and display of these resources is prohibited. No license is granted to any other TI intellectual property right or to any third party intellectual property right. TI disclaims responsibility for, and you fully indemnify TI and its representatives against any claims, damages, costs, losses, and liabilities arising out of your use of these resources.

TI's products are provided subject to TI's Terms of Sale, TI's General Quality Guidelines, or other applicable terms available either on ti.com or provided in conjunction with such TI products. TI's provision of these resources does not expand or otherwise alter TI's applicable warranties or warranty disclaimers for TI products. Unless TI explicitly designates a product as custom or customer-specified, TI products are standard, catalog, general purpose devices.

TI objects to and rejects any additional or different terms you may propose.

Copyright © 2025, Texas Instruments Incorporated

Last updated 10/2025