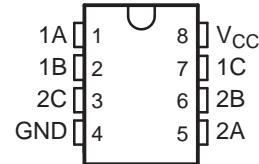


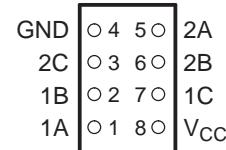
FEATURES

- Available in the Texas Instruments NanoFree™ Package
- Operates at 0.8 V to 2.7 V
- Sub-1-V Operable
- Max t_{pd} of 0.5 ns at 1.8 V
- Low Power Consumption, 10 μ A at 2.7 V
- High On-Off Output Voltage Ratio
- High Degree of Linearity
- Latch-Up Performance Exceeds 100 mA Per JESD 78, Class II
- ESD Performance Tested Per JESD 22
 - 2000-V Human-Body Model (A114-B, Class II)
 - 200-V Machine Model (A115-A)
 - 1000-V Charged-Device Model (C101)

DCT OR DCU PACKAGE
(TOP VIEW)



YZP PACKAGE
(BOTTOM VIEW)



DESCRIPTION/ORDERING INFORMATION

This dual analog switch is operational at 0.8-V to 2.7-V V_{CC} , but is designed specifically for 1.1-V to 2.7-V V_{CC} operation.

The SN74AUC2G66 can handle both analog and digital signals. It permits signals with amplitudes of up to 2.7-V (peak) to be transmitted in either direction.

NanoFree™ package technology is a major breakthrough in IC packaging concepts, using the die as the package.

Applications include signal gating, chopping, modulation or demodulation (modem), and signal multiplexing for analog-to-digital and digital-to-analog conversion systems.

ORDERING INFORMATION

T_A	PACKAGE ⁽¹⁾	ORDERABLE PART NUMBER	TOP-SIDE MARKING ⁽²⁾
-40°C to 85°C	NanoFree™ – W CSP (DSBGA) 0.23-mm Large Bump – YZP (Pb-free)	Reel of 3000	SN74AUC2G66YZPR _ _ _ U6 _
	SSOP – DCT	Reel of 3000	SN74AUC2G66DCTR U66_ _ _
	VSSOP – DCU	Reel of 3000	SN74AUC2G66DCUR U66_

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

(2) DCT: The actual top-side marking has three additional characters that designate the year, month, and assembly/test site.

DCU: The actual top-side marking has one additional character that designates the assembly/test site.

YZP: The actual top-side marking has three preceding characters to denote year, month, and sequence code, and one following character to designate the assembly/test site. Pin 1 identifier indicates solder-bump composition (1 = SnPb, • = Pb-free).

FUNCTION TABLE

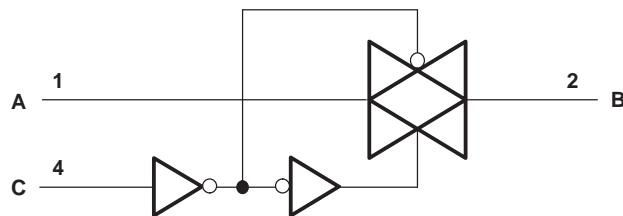
CONTROL INPUT (C)	SWITCH
L	OFF
H	ON



Please be aware that an important notice concerning availability, standard warranty, and use in critical applications of Texas Instruments semiconductor products and disclaimers thereto appears at the end of this data sheet.

NanoFree is a trademark of Texas Instruments.

LOGIC DIAGRAM (POSITIVE LOGIC)



Absolute Maximum Ratings⁽¹⁾

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

		MIN	MAX	UNIT
V_{CC}	Supply voltage range ⁽²⁾	-0.5	3.6	V
V_I	Input voltage range ⁽²⁾⁽³⁾	-0.5	3.6	V
$V_{I/O}$	Switch I/O voltage range ⁽²⁾⁽³⁾	-0.5	$V_{CC} + 0.5$	V
I_{IK}	Control input clamp current	$V_I < 0$	-50	mA
I_{IOK}	I/O port diode current	$V_{I/O} < 0$ or $V_{I/O} > V_{CC}$	± 50	mA
I_T	On-state switch current	$V_{I/O} = 0$ to V_{CC}	± 50	mA
	Continuous current through V_{CC} or GND		± 100	mA
θ_{JA}	Package thermal impedance ⁽⁴⁾	DCT package	220	°C/W
		DCU package	227	
		YZP package	102	
T_{stg}	Storage temperature range	-65	150	°C

- (1) 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.
- (2) All voltages are with respect to ground unless otherwise specified.
- (3) The input negative-voltage and output voltage ratings may be exceeded if the input and output current ratings are observed.
- (4) The package thermal impedance is calculated in accordance with JESD 51-7.

Recommended Operating Conditions⁽¹⁾

			MIN	MAX	UNIT
V _{CC} Supply voltage			0.8	2.7	V
V _{IH} High-level input voltage	V _{CC} = 0.8 V		V _{CC}		V
	V _{CC} = 1.1 V to 1.95 V		0.65 × V _{CC}		
	V _{CC} = 2.3 V to 2.7 V		1.7		
V _{IL} Low-level input voltage	V _{CC} = 0.8 V		0		V
	V _{CC} = 1.1 V to 1.95 V		0.35 × V _{CC}		
	V _{CC} = 2.3 V to 2.7 V		0.7		
V _{I/O} I/O port voltage			0	V _{CC}	V
V _I Control input voltage			0	3.6	V
Δt/Δv Input transition rise or fall rate	V _{CC} = 0.8 V to 1.65 V ⁽²⁾		20		ns/V
	V _{CC} = 1.65 V to 2.3 V ⁽³⁾		20		
	V _{CC} = 2.3 V to 2.7 V ⁽³⁾		20		
T _A Operating free-air temperature			-40	85	°C

(1) 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.

(2) The data was taken at C_L = 15 pF, R_L = 2 kΩ (see [Figure 1](#)).

(3) The data was taken at C_L = 30 pF, R_L = 500 Ω (see [Figure 1](#)).

Electrical Characteristics

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

PARAMETER	TEST CONDITIONS	V _{CC}	MIN	TYP ⁽¹⁾	MAX	UNIT
r _{on} On-state switch resistance	V _I = V _{CC} or GND, V _C = V _{IH} (see Figure 1 and Figure 2)	I _S = 4 mA	1.1 V	17	40	Ω
			1.65 V	7	20	
		I _S = 8 mA	2.3 V	4	15	
r _{on(p)} Peak on resistance	V _I = V _{CC} to GND, V _C = V _{IH} (see Figure 1 and Figure 2)	I _S = 4 mA	1.1 V	131	180	Ω
			1.65 V	32	80	
		I _S = 8 mA	2.3 V	15	20	
Δr _{on} Difference of on-state resistance between switches	V _I = V _{CC} to GND, V _C = V _{IH} (see Figure 1 and Figure 2)	I _S = 4 mA	1.1 V		3	Ω
			1.65 V		1	
		I _S = 8 mA	2.3 V		1	
I _{S(off)} Off-state switch leakage current	V _I = V _{CC} and V _O = GND, or V _I = GND and V _O = V _{CC} , V _C = V _{IL} (see Figure 3)		2.7 V		±1	μA
					±0.1 ⁽²⁾	
I _{S(on)} On-state switch leakage current	V _I = V _{CC} or GND, V _C = V _{IH} , V _O = Open (see Figure 4)		2.7 V		±1	μA
					±0.1 ⁽²⁾	
I _I Control input current	V _I = V _{CC} or GND		0 to 2.7 V		±5	μA
I _{CC} Supply current	V _I = V _{CC} or GND, I _O = 0		0.8 V to 2.7 V		10	μA
C _{ic} Control input capacitance			2.5 V		2.5	pF
C _{io(off)} Switch input/output capacitance			2.5 V		3	pF
C _{io(on)} Switch input/output capacitance			2.5 V		7	pF

(1) t_a = 25°C

(2) The data was taken at C_L = 15 pF, R_L = 2 kΩ (see [Figure 1](#)).

SN74AUC2G66

DUAL BILATERAL ANALOG SWITCH

SCES507A–NOVEMBER 2003–REVISED JANUARY 2007

Switching Characteristics

over recommended operating free-air temperature range, $C_L = 15 \text{ pF}$ (unless otherwise noted) (see [Figure 5](#))

PARAMETER	FROM (INPUT)	TO (OUTPUT)	$V_{CC} = 0.8 \text{ V}$	$V_{CC} = 1.2 \text{ V} \pm 0.1 \text{ V}$	$V_{CC} = 1.5 \text{ V} \pm 0.1 \text{ V}$	$V_{CC} = 1.8 \text{ V} \pm 0.15 \text{ V}$	$V_{CC} = 2.5 \text{ V} \pm 0.2 \text{ V}$	UNIT
			TYP	MIN	MAX	MIN	MAX	
$t_{pd}^{(1)}$	A or B	B or A	1	0.6		0.5	0.5	0.4
t_{en}	C	A or B	5	0.5	3	0.5	2.1	0.5
t_{dis}	C	A or B	5.3	0.5	4	0.5	3	0.5
						0.5	2.6	3.3
						0.5	2.7	ns

(1) The propagation delay is the calculated RC time constant of the typical on-state resistance of the switch and the specified load capacitance when driven by an ideal voltage source (zero output impedance).

Switching Characteristics

over recommended operating free-air temperature range, $C_L = 30 \text{ pF}$ (unless otherwise noted) (see [Figure 5](#))

PARAMETER	FROM (INPUT)	TO (OUTPUT)	$V_{CC} = 1.8 \text{ V} \pm 0.15 \text{ V}$	$V_{CC} = 2.5 \text{ V} \pm 0.2 \text{ V}$	UNIT			
			MIN	TYP	MAX	MIN	MAX	
$t_{pd}^{(1)}$	A or B	B or A		0.7		0.7	0.7	ns
t_{en}	C	A or B	0.5	1.6	2.7	0.5	2.3	ns
t_{dis}	C	A or B	0.5	2.7	3.4	0.5	2	ns

(1) The propagation delay is the calculated RC time constant of the typical on-state resistance of the switch and the specified load capacitance when driven by an ideal voltage source (zero output impedance).

Analog Switch Characteristics

$T_A = 25^\circ\text{C}$

PARAMETER	FROM (INPUT)	TO (OUTPUT)	TEST CONDITIONS	V_{CC}	TYP	UNIT
Frequency response (switch ON)	A or B	B or A	$C_L = 50 \text{ pF}, R_L = 600 \Omega, f_{in} = \text{sine wave}$ (see Figure 6)	0.8 V	101	MHz
				1.1 V	150	
				1.4 V	175	
				1.65 V	250	
				2.3 V	400	
			$C_L = 5 \text{ pF}, R_L = 50 \Omega, f_{in} = \text{sine wave}$ (see Figure 6)	0.8 V	450	
				1.1 V	>500	
				1.4 V	>500	
				1.65 V	>500	
				2.3 V	>500	
Crosstalk (between switches)	A or B	B or A	$C_L = 50 \text{ pF}, R_L = 600 \Omega, f_{in} = 1 \text{ MHz}$ (sine wave) (see Figure 7)	0.8 V	-60	dB
				1.1 V	-60	
				1.4 V	-60	
				1.65 V	-60	
				2.3 V	-60	
			$C_L = 5 \text{ pF}, R_L = 50 \Omega, f_{in} = 1 \text{ MHz}$ (sine wave) (see Figure 7)	0.8 V	-65	
				1.1 V	-65	
				1.4 V	-65	
				1.65 V	-65	
				2.3 V	-65	

Analog Switch Characteristics (continued)

$T_A = 25^\circ\text{C}$

PARAMETER	FROM (INPUT)	TO (OUTPUT)	TEST CONDITIONS	V_{CC}	TYP	UNIT
Crosstalk (control input to signal output)	C	A or B	$C_L = 50 \text{ pF}, R_L = 600 \Omega, f_{in} = 1 \text{ MHz}$ (square wave) (see Figure 8)	0.8 V	9	mV
				1.1 V	14	
				1.4 V	15	
				1.65 V	16	
				2.3 V	20	
Feedthrough attenuation (switch OFF)	A or B	B or A	$C_L = 50 \text{ pF}, R_L = 600 \Omega, f_{in} = 1 \text{ MHz}$ (sine wave) (see Figure 9)	0.8 V	-50	dB
				1.1 V	-50	
				1.4 V	-50	
				1.65 V	-50	
				2.3 V	-50	
		B or A	$C_L = 5 \text{ pF}, R_L = 50 \Omega, f_{in} = 1 \text{ MHz}$ (sine wave) (see Figure 9)	0.8 V	-60	
				1.1 V	-60	
				1.4 V	-60	
				1.65 V	-60	
				2.3 V	-60	
Sine-wave distortion	A or B	B or A	$C_L = 50 \text{ pF}, R_L = 10 \text{ k}\Omega, f_{in} = 1 \text{ kHz}$ (sine wave) (see Figure 10)	0.8 V	7	%
				1.1 V	0.256	
				1.4 V	0.04	
				1.65 V	0.03	
				2.3 V	0.01	
	A or B	B or A	$C_L = 50 \text{ pF}, R_L = 10 \text{ k}\Omega, f_{in} = 10 \text{ kHz}$ (sine wave) (see Figure 10)	0.8 V	3.7	
				1.1 V	0.4	
				1.4 V	0.04	
				1.65 V	0.02	
				2.3 V	0.02	

Operating Characteristics

$T_A = 25^\circ\text{C}$

PARAMETER	TEST CONDITIONS	$V_{CC} = 0.8 \text{ V}$	$V_{CC} = 1.2 \text{ V}$	$V_{CC} = 1.5 \text{ V}$	$V_{CC} = 1.8 \text{ V}$	$V_{CC} = 2.5 \text{ V}$	UNIT
		TYP	TYP	TYP	TYP	TYP	
C_{pd}	Power dissipation capacitance $f = 10 \text{ MHz}$	2.5	2.5	2.5	2.5	2.5	pF

PARAMETER MEASUREMENT INFORMATION

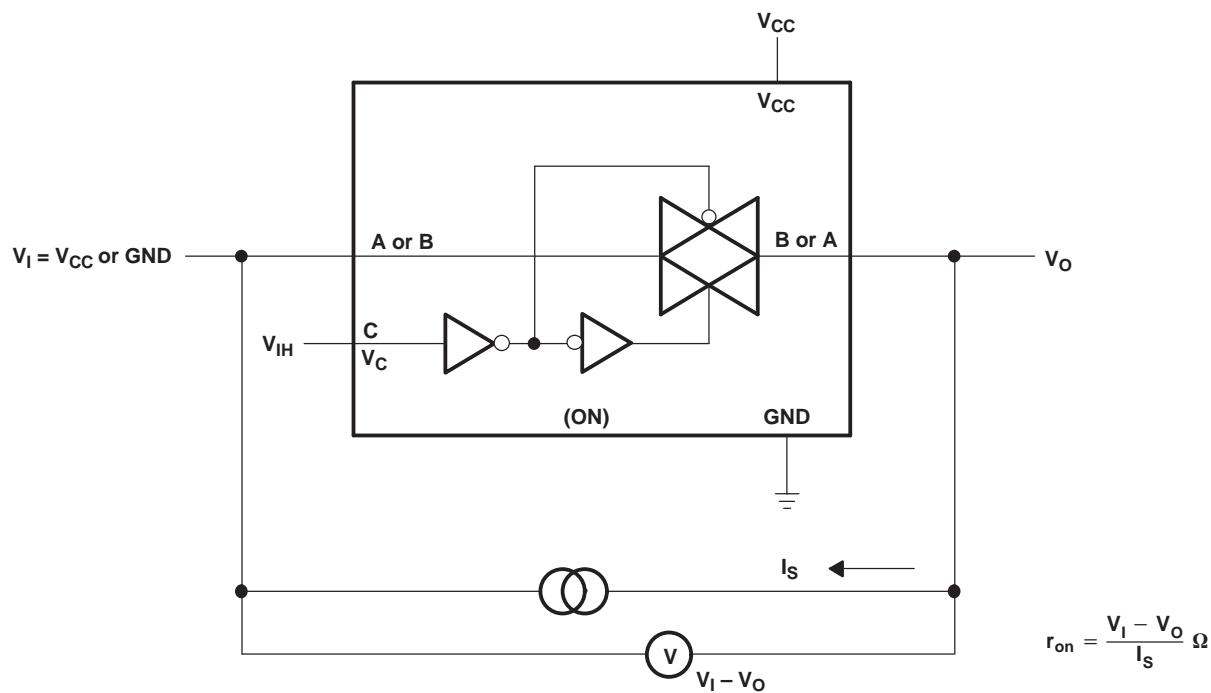


Figure 1. On-State Resistance Test Circuit

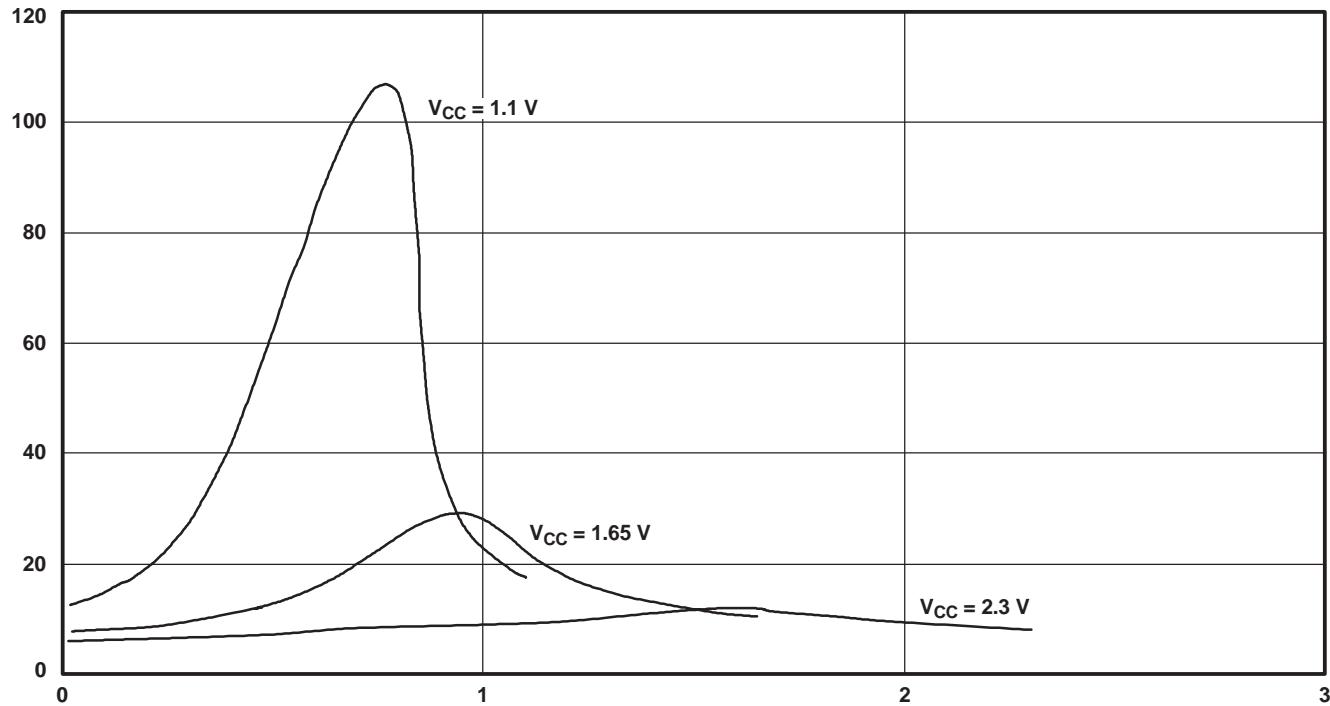


Figure 2. Typical r_{on} as a Function of Voltage (V_I) for $V_I = 0$ to V_{CC}

PARAMETER MEASUREMENT INFORMATION

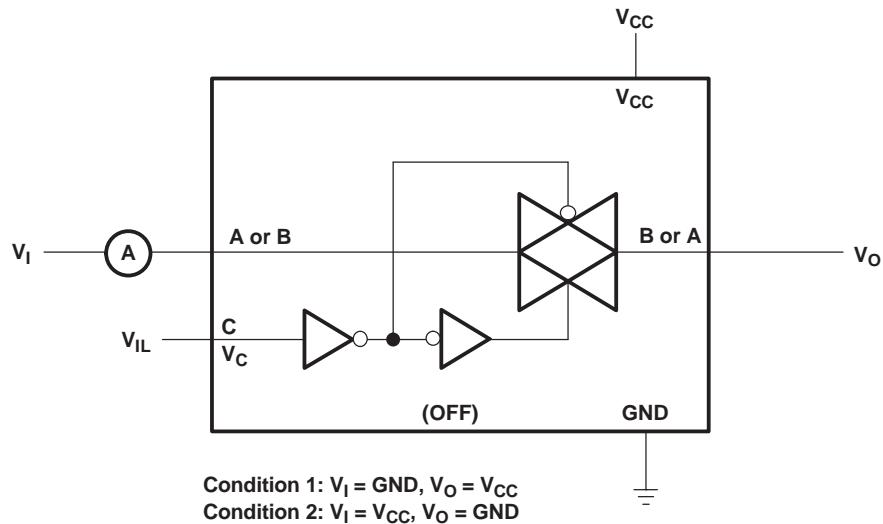


Figure 3. Off-State Switch Leakage-Current Test Circuit

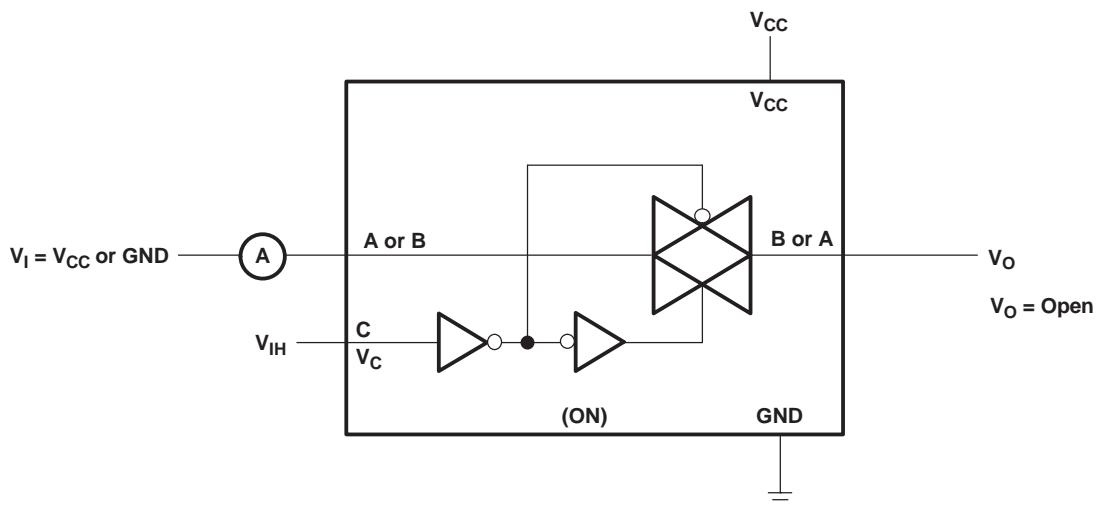
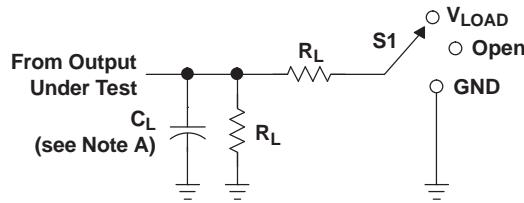


Figure 4. On-State Leakage-Current Test Circuit

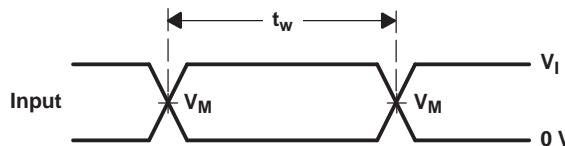
PARAMETER MEASUREMENT INFORMATION



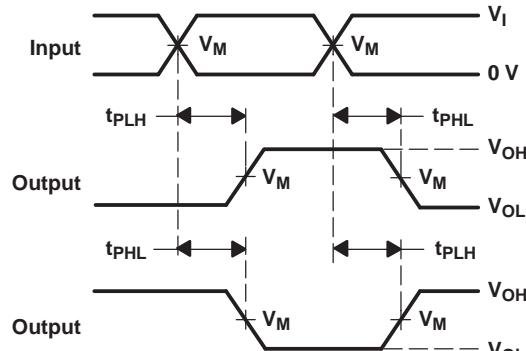
TEST	S1
t_{PLH}/t_{PHL}	Open
t_{PLZ}/t_{PZL}	V_{LOAD}
t_{PHZ}/t_{PZH}	GND

LOAD CIRCUIT

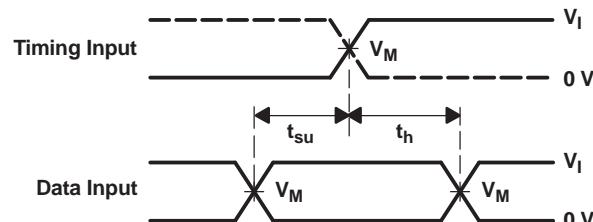
V_{CC}	INPUTS		V_M	V_{LOAD}	C_L	R_L	V_Δ
	V_I	t_r/t_f					
0.8 V	V_{CC}	≤ 2 ns	$V_{CC}/2$	$2 \times V_{CC}$	15 pF	2 k Ω	0.1 V
$1.2 \text{ V} \pm 0.1 \text{ V}$	V_{CC}	≤ 2 ns	$V_{CC}/2$	$2 \times V_{CC}$	15 pF	2 k Ω	0.1 V
$1.5 \text{ V} \pm 0.1 \text{ V}$	V_{CC}	≤ 2 ns	$V_{CC}/2$	$2 \times V_{CC}$	15 pF	2 k Ω	0.1 V
$1.8 \text{ V} \pm 0.15 \text{ V}$	V_{CC}	≤ 2 ns	$V_{CC}/2$	$2 \times V_{CC}$	15 pF	2 k Ω	0.15 V
$2.5 \text{ V} \pm 0.2 \text{ V}$	V_{CC}	≤ 2 ns	$V_{CC}/2$	$2 \times V_{CC}$	15 pF	2 k Ω	0.15 V
$1.8 \text{ V} \pm 0.15 \text{ V}$	V_{CC}	≤ 2 ns	$V_{CC}/2$	$2 \times V_{CC}$	30 pF	1 k Ω	0.15 V
$2.5 \text{ V} \pm 0.2 \text{ V}$	V_{CC}	≤ 2 ns	$V_{CC}/2$	$2 \times V_{CC}$	30 pF	500 Ω	0.15 V



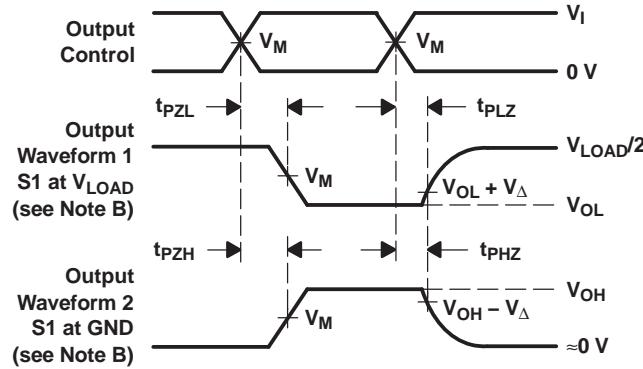
**VOLTAGE WAVEFORMS
PULSE DURATION**



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



**VOLTAGE WAVEFORMS
SETUP AND HOLD TIMES**



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

NOTES: A. C_L includes probe and jig capacitance.

- B. Waveform 1 is for an output with internal conditions such that the output is low, except when disabled by the output control. Waveform 2 is for an output with internal conditions such that the output is high, except when disabled by the output control.
- C. All input pulses are supplied by generators having the following characteristics: PRR ≤ 10 MHz, $Z_O = 50 \Omega$, slew rate ≥ 1 V/ns.
- D. The outputs are measured one at a time, with one transition per measurement.
- E. t_{PLZ} and t_{PHZ} are the same as t_{dis} .
- F. t_{PZL} and t_{PZH} are the same as t_{en} .
- G. t_{PLH} and t_{PHL} are the same as t_{pd} .
- H. All parameters and waveforms are not applicable to all devices.

Figure 5. Load Circuit and Voltage Waveforms

PARAMETER MEASUREMENT INFORMATION

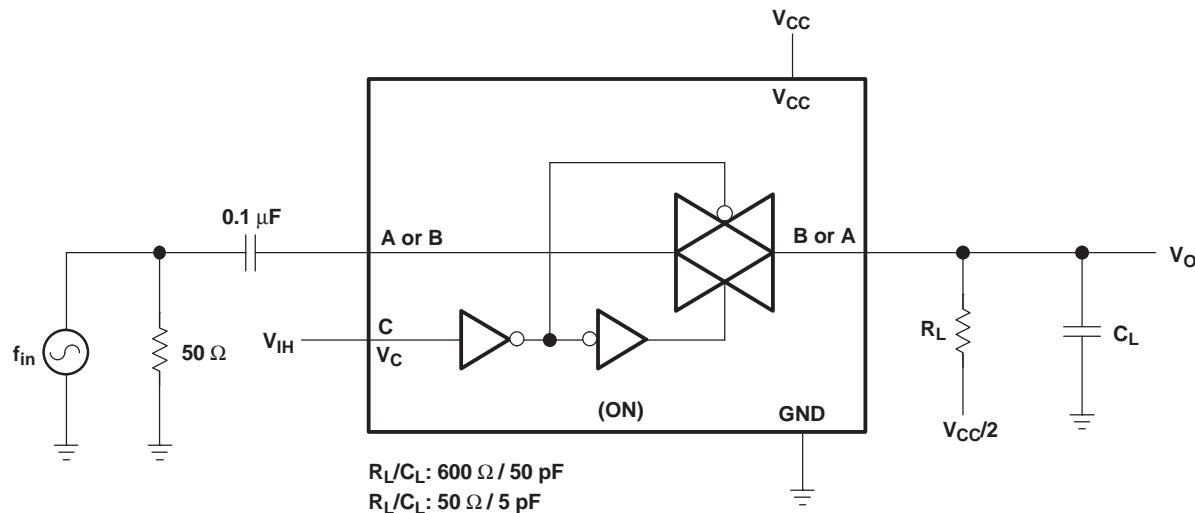


Figure 6. Frequency Response (Switch ON)

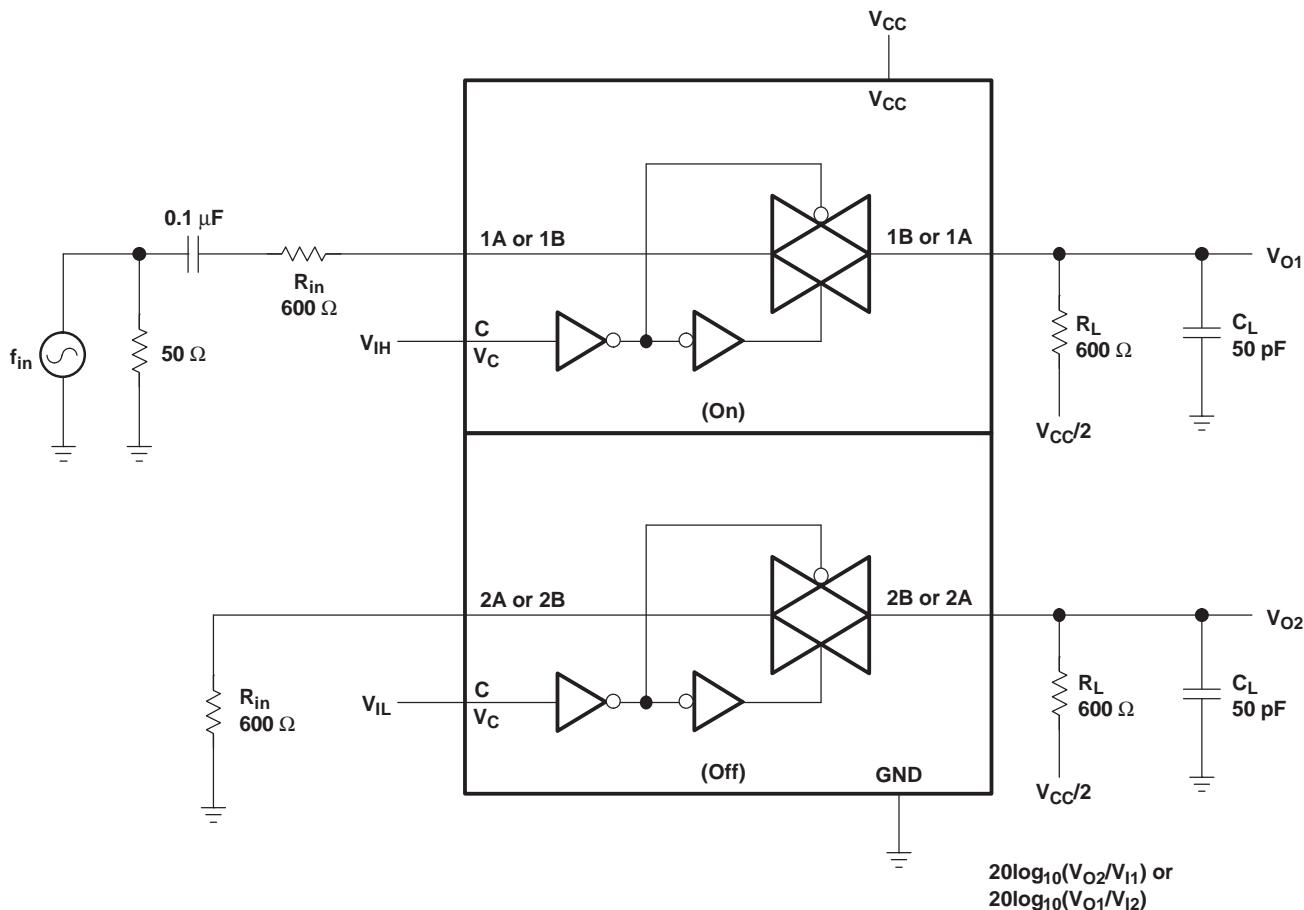


Figure 7. Crosstalk (Between Switches)

PARAMETER MEASUREMENT INFORMATION

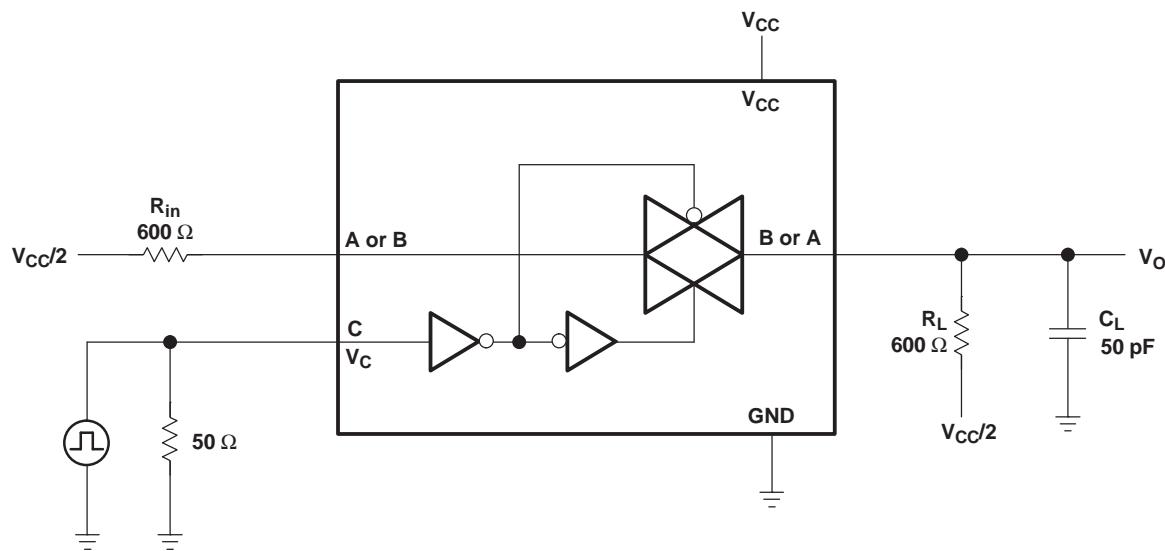


Figure 8. Crosstalk (Control Input – Switch Output)

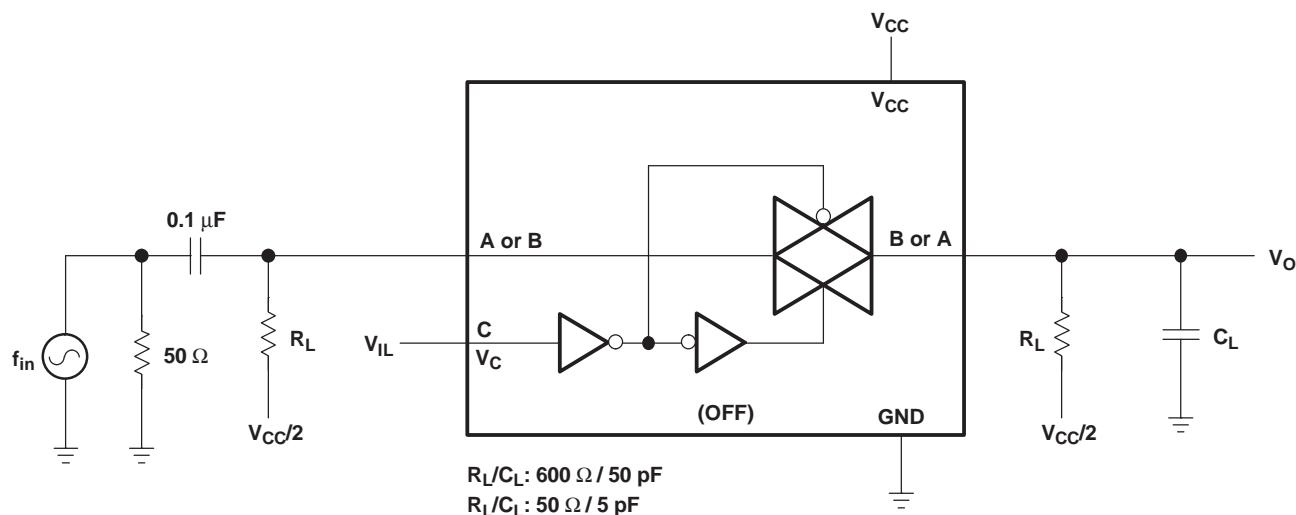


Figure 9. Feedthrough, Switch Off

PARAMETER MEASUREMENT INFORMATION

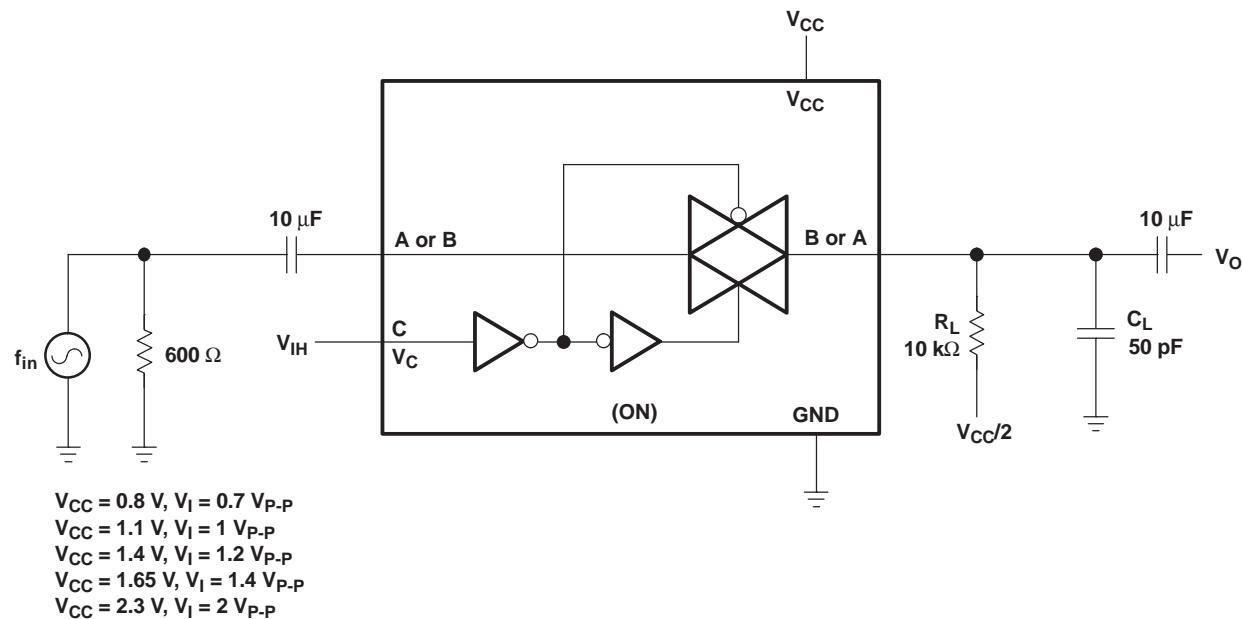


Figure 10. Sine-Wave Distortion

PACKAGING INFORMATION

Orderable part number	Status (1)	Material type (2)	Package Pins	Package qty Carrier	RoHS (3)	Lead finish/ Ball material (4)	MSL rating/ Peak reflow (5)	Op temp (°C)	Part marking (6)
SN74AUC2G66DCTR	Active	Production	SSOP (DCT) 8	3000 LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 85	U66 (R, Z)
SN74AUC2G66DCTR.B	Active	Production	SSOP (DCT) 8	3000 LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 85	U66 (R, Z)
SN74AUC2G66DCUR	Active	Production	VSSOP (DCU) 8	3000 LARGE T&R	Yes	NIPDAU SN	Level-1-260C-UNLIM	-40 to 85	(66, U66Q, U66R) (UR, UZ)
SN74AUC2G66DCUR.B	Active	Production	VSSOP (DCU) 8	3000 LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 85	(66, U66Q, U66R) (UR, UZ)
SN74AUC2G66DCURG4	Active	Production	VSSOP (DCU) 8	3000 LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 85	U66R
SN74AUC2G66DCURG4.B	Active	Production	VSSOP (DCU) 8	3000 LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 85	U66R
SN74AUC2G66YZPR	Active	Production	DSBGA (YZP) 8	3000 LARGE T&R	Yes	SNAGCU	Level-1-260C-UNLIM	-40 to 85	U6N
SN74AUC2G66YZPR.B	Active	Production	DSBGA (YZP) 8	3000 LARGE T&R	Yes	SNAGCU	Level-1-260C-UNLIM	-40 to 85	U6N

⁽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.

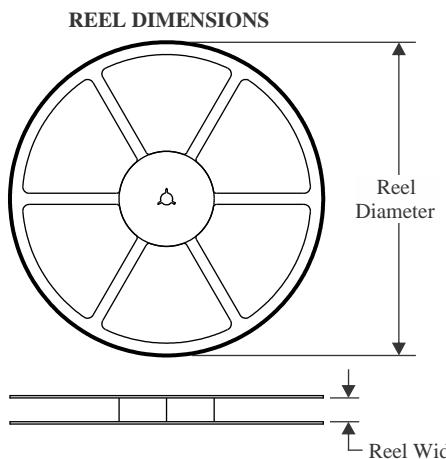
⁽⁵⁾ **MSL rating/Peak reflow:** The moisture sensitivity level ratings and peak solder (reflow) temperatures. In the event that a part has multiple moisture sensitivity ratings, only the lowest level per JEDEC standards is shown. Refer to the shipping label for the actual reflow temperature that will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

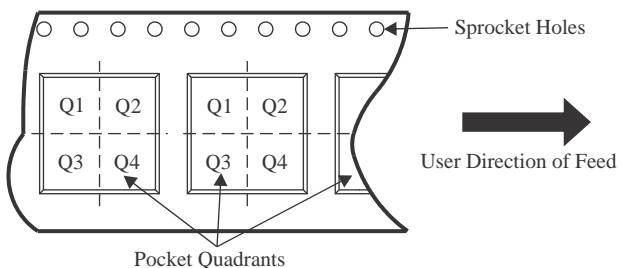
Multiple part markings will be inside parentheses. Only one part marking contained in parentheses and separated by a "~" will appear on a part. If a line is indented then it is a continuation of the previous line and the two combined represent the entire part marking for that device.

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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.

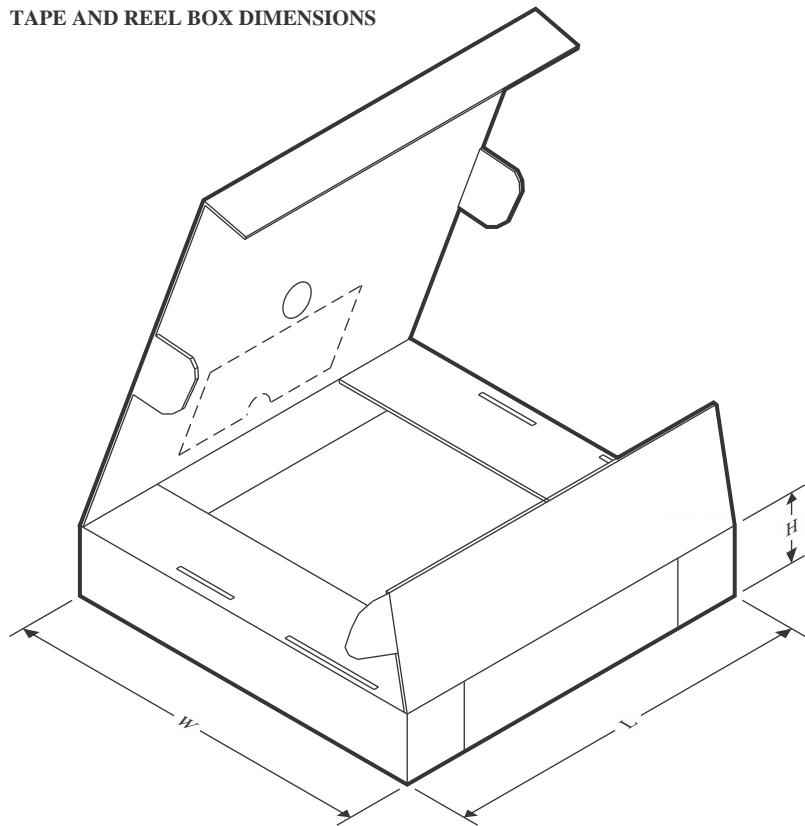
TAPE AND REEL INFORMATION


A0	Dimension designed to accommodate the component width
B0	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	Pins	SPQ	Reel Diameter (mm)	Reel Width W1 (mm)	A0 (mm)	B0 (mm)	K0 (mm)	P1 (mm)	W (mm)	Pin1 Quadrant
SN74AUC2G66DCTR	SSOP	DCT	8	3000	180.0	13.0	3.35	4.5	1.55	4.0	12.0	Q3
SN74AUC2G66DCUR	VSSOP	DCU	8	3000	178.0	9.5	2.25	3.35	1.05	4.0	8.0	Q3
SN74AUC2G66DCUR	VSSOP	DCU	8	3000	180.0	8.4	2.25	3.35	1.05	4.0	8.0	Q3
SN74AUC2G66DCURG4	VSSOP	DCU	8	3000	180.0	8.4	2.25	3.35	1.05	4.0	8.0	Q3
SN74AUC2G66YZPR	DSBGA	YZP	8	3000	178.0	9.2	1.02	2.02	0.63	4.0	8.0	Q1

TAPE AND REEL BOX DIMENSIONS


*All dimensions are nominal

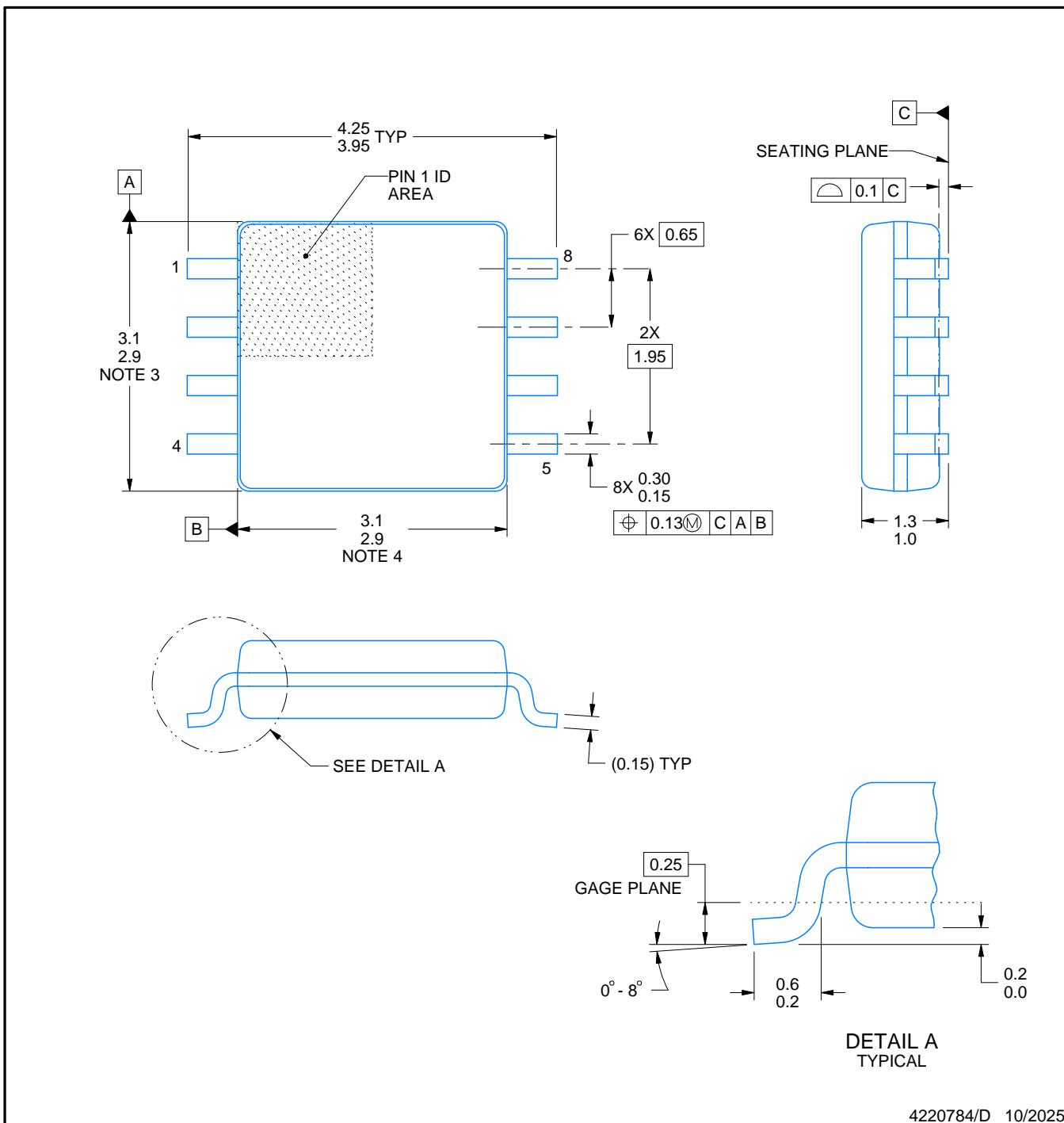
Device	Package Type	Package Drawing	Pins	SPQ	Length (mm)	Width (mm)	Height (mm)
SN74AUC2G66DCTR	SSOP	DCT	8	3000	182.0	182.0	20.0
SN74AUC2G66DCUR	VSSOP	DCU	8	3000	202.0	201.0	28.0
SN74AUC2G66DCUR	VSSOP	DCU	8	3000	202.0	201.0	28.0
SN74AUC2G66DCURG4	VSSOP	DCU	8	3000	202.0	201.0	28.0
SN74AUC2G66YZPR	DSBGA	YZP	8	3000	220.0	220.0	35.0



PACKAGE OUTLINE

SSOP - 1.3 mm max height

SMALL OUTLINE PACKAGE



NOTES:

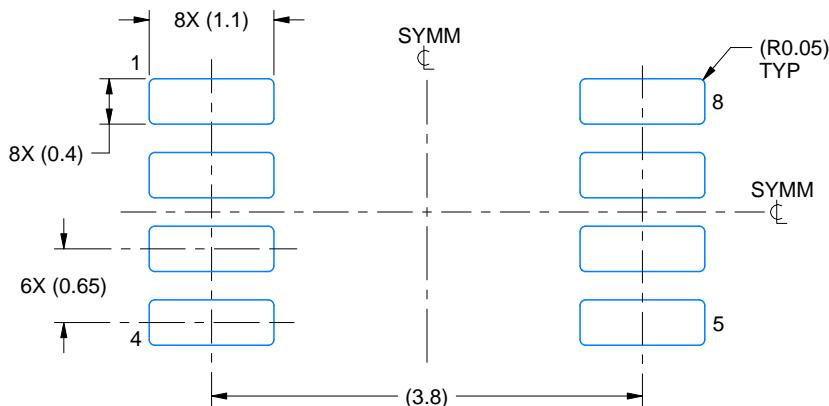
1. All linear dimensions are in millimeters. Dimensions in parenthesis are for reference only. Dimensioning and tolerancing per ASME Y14.5M.
2. This drawing is subject to change without notice.
3. This dimension does not include mold flash, protrusions, or gate burrs. Mold flash, protrusions, or gate 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.

EXAMPLE BOARD LAYOUT

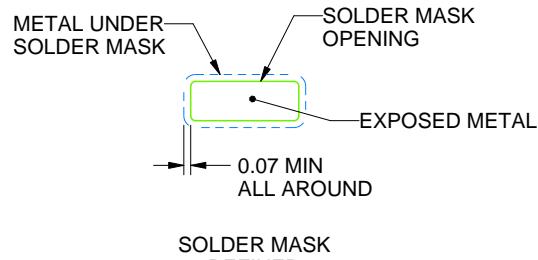
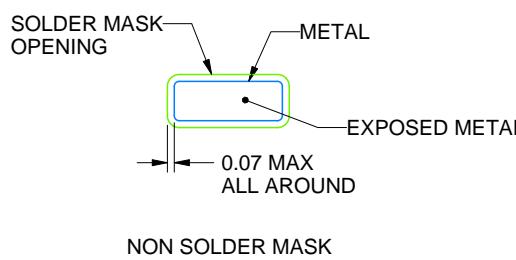
DCT0008A

SSOP - 1.3 mm max height

SMALL OUTLINE PACKAGE



LAND PATTERN EXAMPLE
EXPOSED METAL SHOWN
SCALE:15X



SOLDER MASK DETAILS

4220784/D 10/2025

NOTES: (continued)

5. Publication IPC-7351 may have alternate designs.

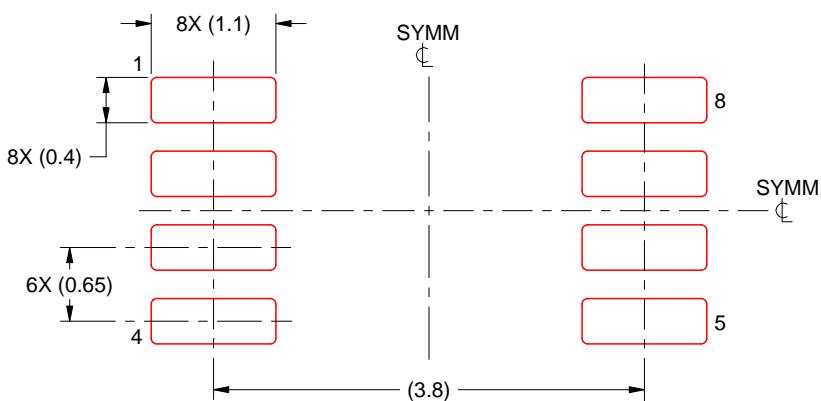
6. Solder mask tolerances between and around signal pads can vary based on board fabrication site.

EXAMPLE STENCIL DESIGN

DCT0008A

SSOP - 1.3 mm max height

SMALL OUTLINE PACKAGE



SOLDER PASTE EXAMPLE
BASED ON 0.125 mm THICK STENCIL
SCALE:15X

4220784/D 10/2025

NOTES: (continued)

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

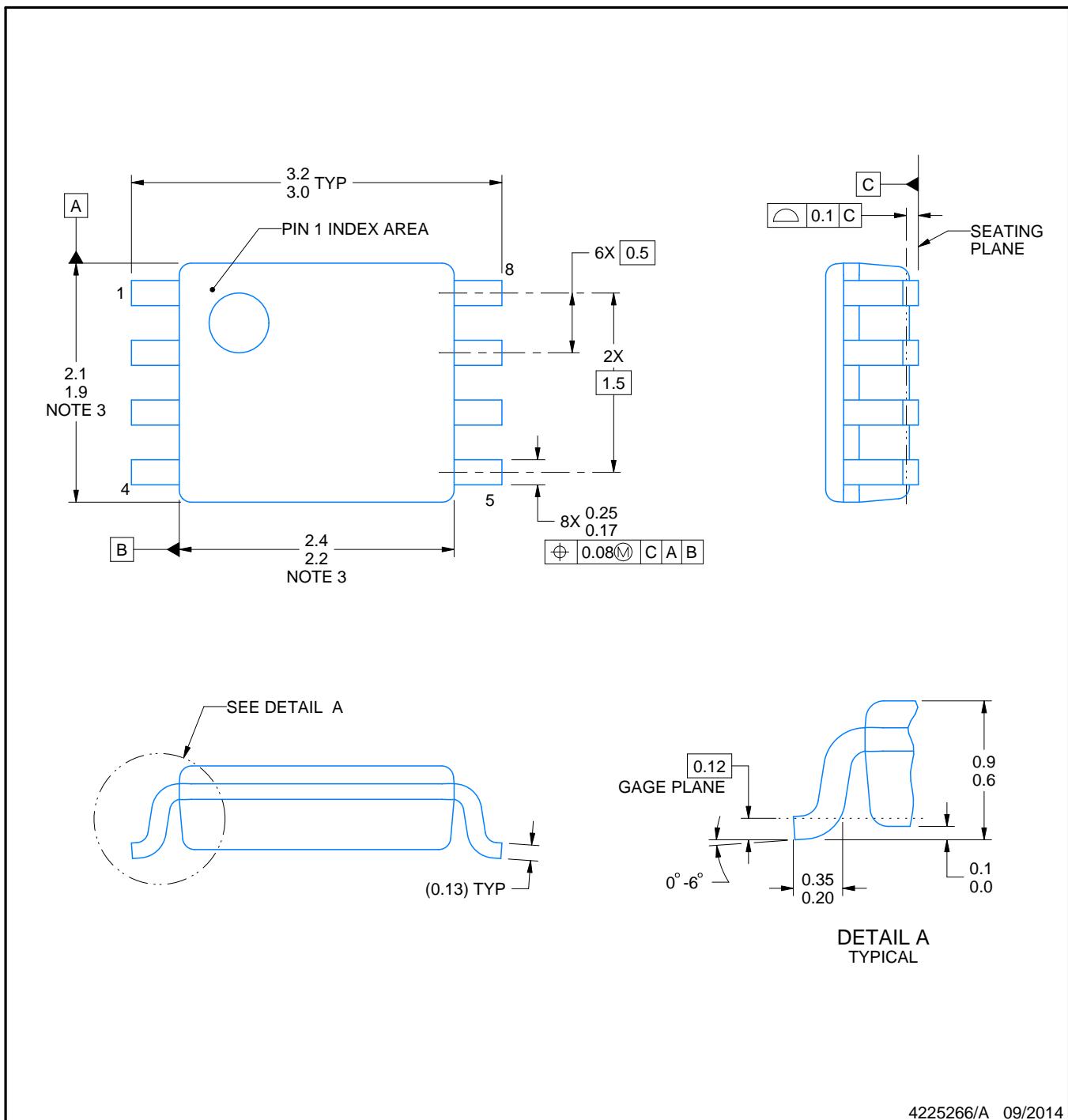
PACKAGE OUTLINE

DCU0008A



VSSOP - 0.9 mm max height

SMALL OUTLINE PACKAGE



NOTES:

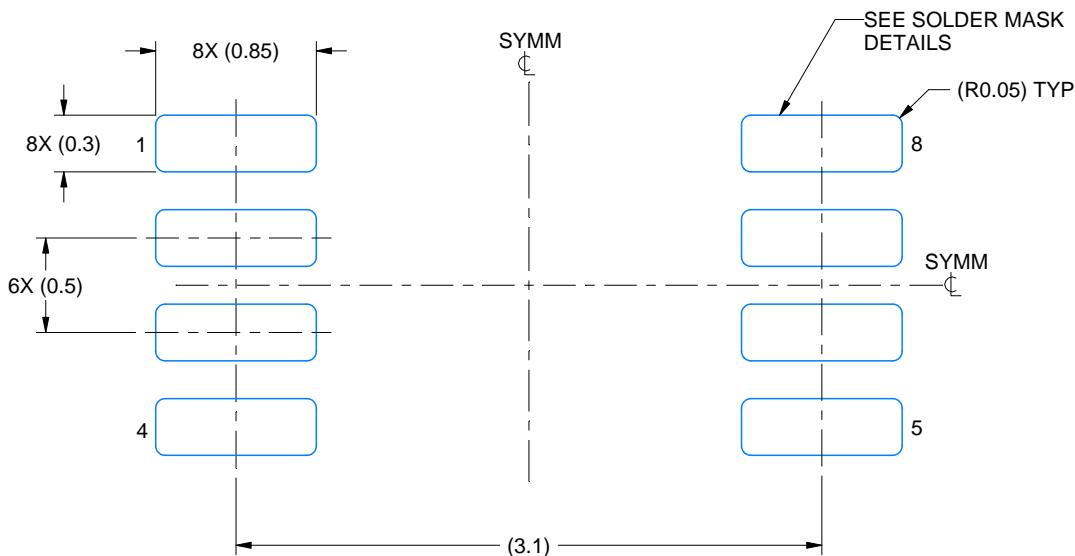
1. All linear dimensions are in millimeters. Any dimensions in parenthesis are for reference only. Dimensioning and tolerancing per ASME Y14.5M.
2. This drawing is subject to change without notice.
3. This dimension does not include mold flash, protrusions, or gate burrs. Mold flash, protrusions, or gate burrs shall not exceed 0.15 mm per side.
4. Reference JEDEC registration MO-187 variation CA.

EXAMPLE BOARD LAYOUT

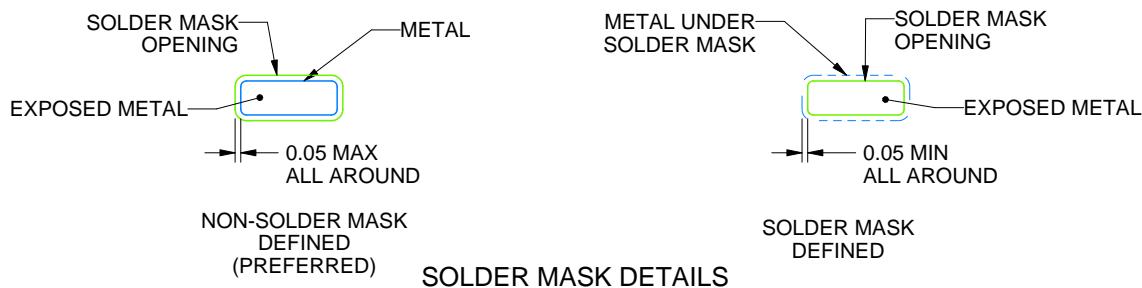
DCU0008A

VSSOP - 0.9 mm max height

SMALL OUTLINE PACKAGE



LAND PATTERN EXAMPLE
EXPOSED METAL SHOWN
SCALE: 25X



4225266/A 09/2014

NOTES: (continued)

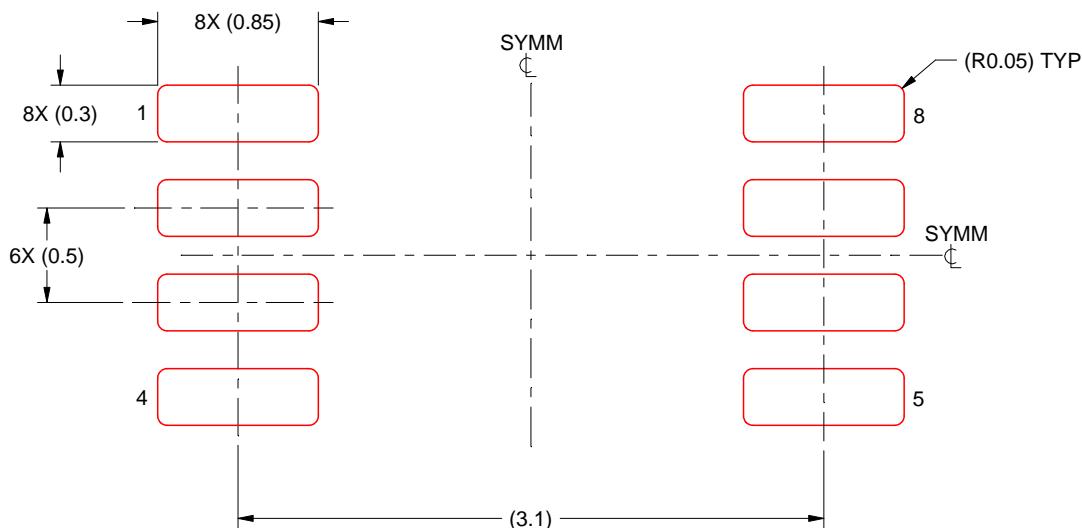
5. Publication IPC-7351 may have alternate designs.
6. Solder mask tolerances between and around signal pads can vary based on board fabrication site.

EXAMPLE STENCIL DESIGN

DCU0008A

VSSOP - 0.9 mm max height

SMALL OUTLINE PACKAGE



SOLDER PASTE EXAMPLE
BASED ON 0.125 mm THICK STENCIL
SCALE: 25X

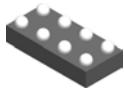
4225266/A 09/2014

NOTES: (continued)

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

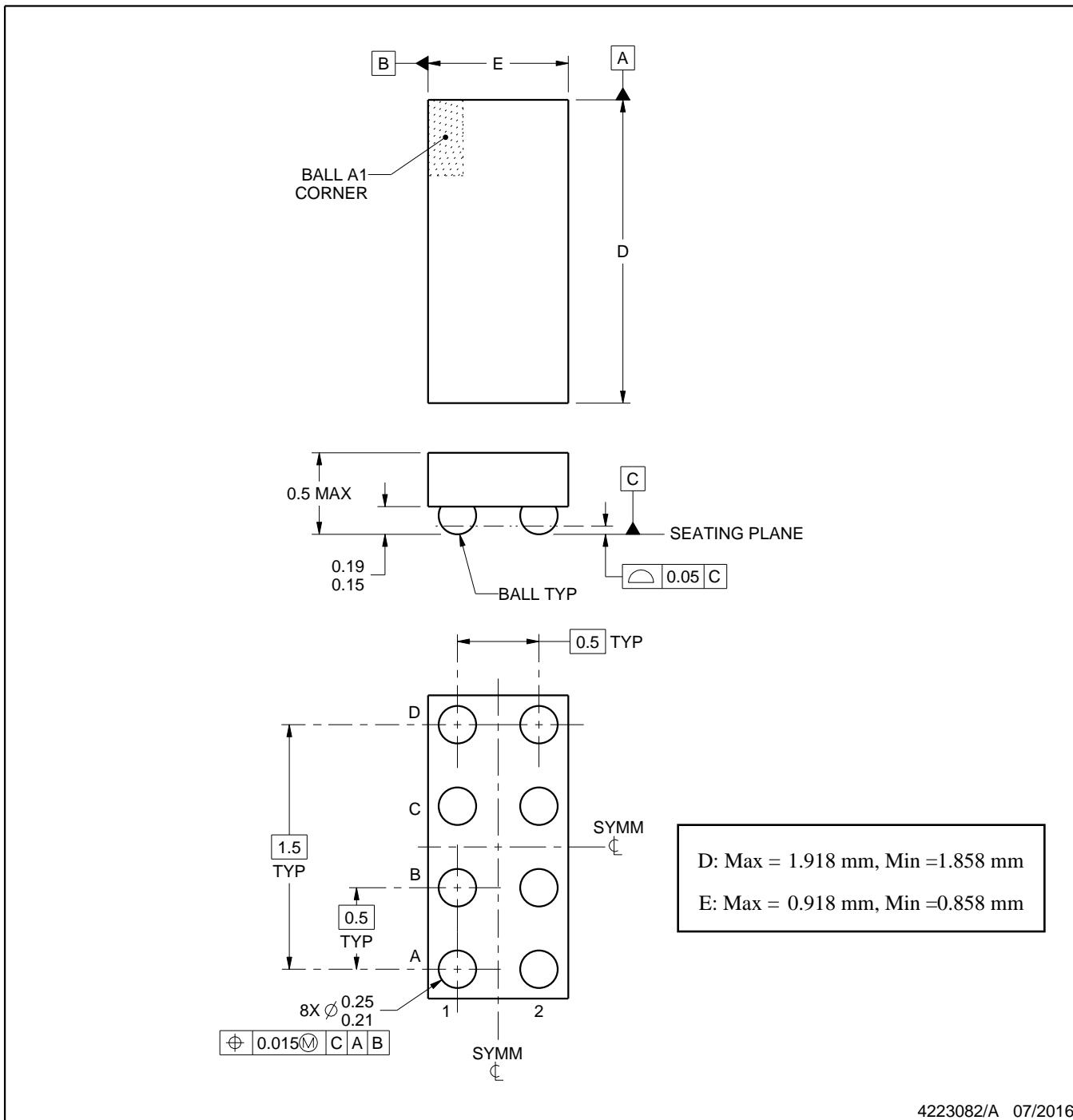
PACKAGE OUTLINE

YZP0008



DSBGA - 0.5 mm max height

DIE SIZE BALL GRID ARRAY



4223082/A 07/2016

NOTES:

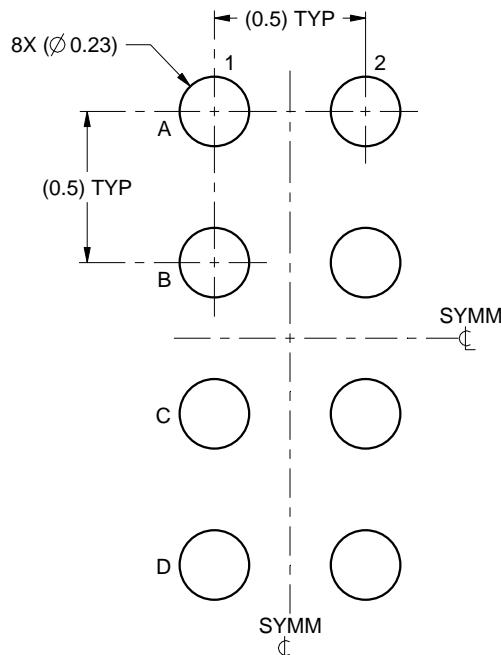
1. All linear dimensions are in millimeters. Any dimensions in parenthesis are for reference only. Dimensioning and tolerancing per ASME Y14.5M.
2. This drawing is subject to change without notice.

EXAMPLE BOARD LAYOUT

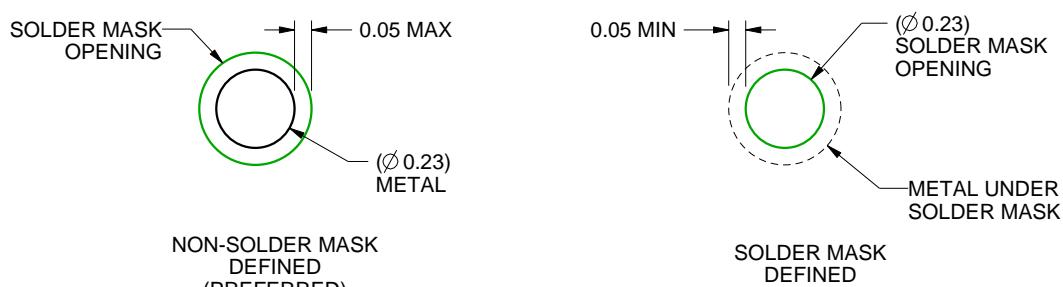
YZP0008

DSBGA - 0.5 mm max height

DIE SIZE BALL GRID ARRAY



LAND PATTERN EXAMPLE
SCALE:40X



SOLDER MASK DETAILS
NOT TO SCALE

4223082/A 07/2016

NOTES: (continued)

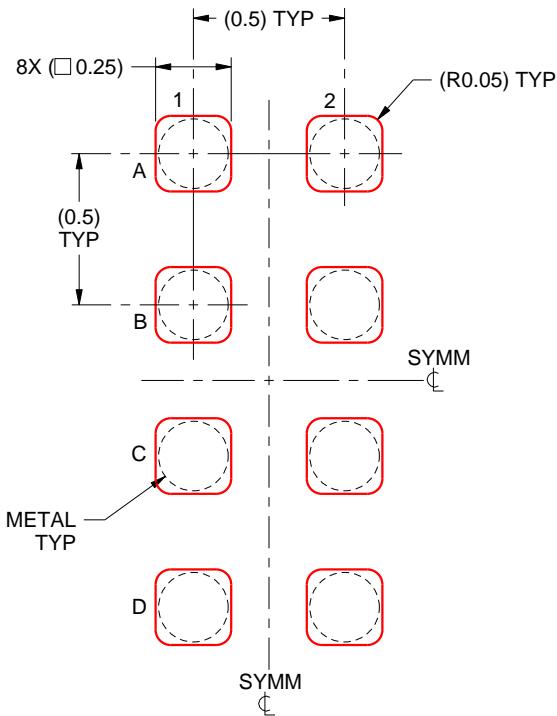
3. Final dimensions may vary due to manufacturing tolerance considerations and also routing constraints. For more information, see Texas Instruments literature number SNVA009 (www.ti.com/lit/snva009).

EXAMPLE STENCIL DESIGN

YZP0008

DSBGA - 0.5 mm max height

DIE SIZE BALL GRID ARRAY



SOLDER PASTE EXAMPLE
BASED ON 0.1 mm THICK STENCIL
SCALE:40X

4223082/A 07/2016

NOTES: (continued)

4. Laser cutting apertures with trapezoidal walls and rounded corners may offer better paste release.

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