

FEATURES

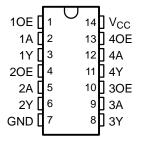
- Operates From 1.65 V to 3.6 V
- Specified From –40°C to 85°C and From –40°C to 125°C
- Inputs Accept Voltages to 5.5 V
- Max t_{pd} of 4.7 ns at 3.3 V
- Typical V_{OLP} (Output Ground Bounce)
 < 0.8 V at V_{CC} = 3.3 V, T_A = 25°C
- Typical V_{OHV} (Output V_{OH} Undershoot)
 2 V at V_{CC} = 3.3 V, T_A = 25°C
- Latch-Up Performance Exceeds 250 mA Per JESD 17
- ESD Protection Exceeds JESD 22
 - 2000-V Human-Body Model (A114-A)
 - 200-V Machine Model (A115-A)

DESCRIPTION/ORDERING INFORMATION

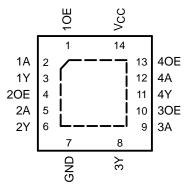
This quadruple bus buffer gate is designed for 1.65-V to 3.6-V V_{CC} operation.

The SN74LVC126A features independent line drivers with 3-state outputs. Each output is disabled when the associated output-enable (OE) input is low.

D, DB, DGV, NS, OR PW PACKAGE (TOP VIEW)



RGY PACKAGE (TOP VIEW)



To ensure the high-impedance state during power up or power down, OE should be tied to GND through a pulldown resistor; the minimum value of the resistor is determined by the current-sourcing capability of the driver.

Inputs can be driven from either 3.3-V or 5-V devices. This feature allows the use of this device as a translator in a mixed 3.3-V/5-V system environment.

ORDERING INFORMATION

T _A	PACKAGE ⁽¹⁾		ORDERABLE PART NUMBER	TOP-SIDE MARKING
-40°C to 85°C	QFN – RGY	Reel of 1000	SN74LVC126ARGYR	LC126A
		Tube of 50	SN74LVC126AD	
	SOIC - D	Reel of 2500	SN74LVC126ADR	LVC126A
		Reel of 250	SN74LVC126ADT	
	SOP - NS	Reel of 2000	SN74LVC126ANSR	LVC126A
-40°C to 125°C	SSOP - DB	Reel of 2000	SN74LVC126ADBR	LC126A
		Tube of 90	SN74LVC126APW	
	TSSOP - PW	Reel of 2000	SN74LVC126APWR	LC126A
		Reel of 250	SN74LVC126APWT	
	TVSOP - DGV	Reel of 2000	SN74LVC126ADGVR	LC126A

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



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

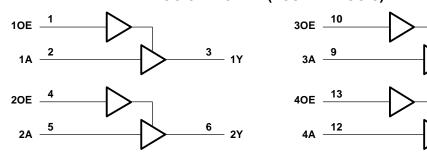


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FUNCTION TABLE (EACH BUFFER)

INPL	JTS	OUTPUT			
OE	Α	Y			
Н	Н	Н			
Н	L	L			
L	X	Z			

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		-0.5	6.5	V
VI	Input voltage range ⁽²⁾	-0.5	6.5	V	
Vo	Output voltage range ⁽²⁾⁽³⁾		-0.5	V _{CC} + 0.5	V
I _{IK}	Input clamp current	V _I < 0		-50	mA
I _{OK}	Output clamp current	V _O < 0		-50	mA
Io	Continuous output current		±50	mA	
	Continuous current through V _{CC} or GND		±100	mA	
		D package ⁽⁴⁾		86	
		DB package ⁽⁴⁾		96	
0	Deales as the same linear advance	DGV package ⁽⁴⁾		127	0000
θ_{JA}	Package thermal impedance	NS package ⁽⁴⁾		76	°C/W
		PW package ⁽⁴⁾		113	
		RGY package ⁽⁵⁾		47	
T _{stg}	Storage temperature range		-65	150	°C
P _{tot}	Power dissipation	$T_A = -40^{\circ}\text{C to } 125^{\circ}\text{C}^{(6)(7)}$		500	mW

⁽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.

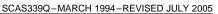
The input and output negative-voltage ratings may be exceeded if the input and output current ratings are observed.

The value of V_{CC} is provided in the recommended operating conditions table.

The package thermal impedance is calculated in accordance with JESD 51-7.

The package thermal impedance is calculated in accordance with JESD 51-5.

For the D package: above 70°C, the value of P_{tot} derates linearly with 8 mW/K. For the DB, NS, and PW packages: above 60°C, the value of P_{tot} derates linearly with 5.5 mW/K.





Recommended Operating Conditions⁽¹⁾

			T _A =	25°C	-40 To	O 85°C	-40 TO 125°C MIN MAX		UNIT	
			MIN	MAX	MIN	MAX			UNII	
V	Cumply voltage	Operating	1.65	3.6	1.65	3.6	1.65	3.6	V	
V _{CC}	Supply voltage	Data retention only	1.5		1.5		1.5		V	
		$V_{CC} = 1.65 \text{ V to } 1.95 \text{ V}$	$0.65 \times V_{CC}$		$0.65 \times V_{CC}$		$0.65 \times V_{CC}$			
V_{IH}	V _{IH} High-level input voltage	V _{CC} = 2.3 V to 2.7 V	1.7		1.7		1.7		V	
input voltago	$V_{CC} = 2.7 \text{ V to } 3.6 \text{ V}$	2		2		2				
		$V_{CC} = 1.65 \text{ V to } 1.95 \text{ V}$		$0.35 \times V_{CC}$		$0.35 \times V_{CC}$		$0.35 \times V_{CC}$		
V_{IL}	Low-level input voltage	V _{CC} = 2.3 V to 2.7 V		0.7		0.7		0.7	V	
	mpat voltage	V _{CC} = 2.7 V to 3.6 V		0.8		0.8		0.8		
VI	Input voltage		0	5.5	0	5.5	0	5.5	V	
Vo	Output voltage		0	V _{CC}	0	V _{CC}	0	V _{CC}	V	
		V _{CC} = 1.65 V		-4		-4		-4		
	High-level	V _{CC} = 2.3 V		-8		-8		-8		
I _{OH}	output current	V _{CC} = 2.7 V		-12		-12		-12	mA	
		V _{CC} = 3 V		-24		-24		-24		
		V _{CC} = 1.65 V		4		4		4		
	Low-level	V _{CC} = 2.3 V		8		8		8	A	
I _{OL}	output current	V _{CC} = 2.7 V		12		12		12	mA	
İ		V _{CC} = 3 V		24		24		24		
Δt/Δv Input transition rise or fall rate			10		10		10	ns/V		

⁽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.

Electrical Characteristics

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

PARAMETER	TEST CONDITIONS	V	T _A =	25°C		-40 TO 8	5°C	-40 TO 1	25°C	UNIT	
PARAMETER	TEST CONDITIONS	V _{CC}	MIN	TYP	MAX	MIN	MAX	MIN	MAX	UNII	
	$I_{OH} = -100 \mu\text{A}$	1.65 V to 3.6 V	V _{CC} - 0.2			V _{CC} - 0.2		V _{CC} - 0.3			
	I _{OH} = -4 mA	1.65 V	1.29			1.2		1.05			
\/	$I_{OH} = -8 \text{ mA}$	2.3 V	1.9			1.7		1.55		V	
V _{OH}	1 10 mA	2.7 V	2.2			2.2		2.05		V	
	$I_{OH} = -12 \text{ mA}$	3 V	2.4			2.4		2.25			
	I _{OH} = -24 mA	3 V	2.3			2.2		2			
	$I_{OL} = 100 \mu A$	1.65 V to 3.6 V			0.1		0.2		0.3		
	$I_{OL} = 4 \text{ mA}$	1.65 V			0.24		0.45		0.6	0.6	
V _{OL}	$I_{OL} = 8 \text{ mA}$	2.3 V			0.3		0.7		0.75	V	
	I _{OL} = 12 mA	2.7 V			0.4		0.4		0.6		
	I _{OL} = 24 mA	3 V			0.55		0.55		0.8		
I _I	V _I = 5.5 V or GND	3.6 V			±1		±5		±20	μΑ	
I _{OZ}	$V_O = V_{CC}$ or GND	3.6 V			±1		±10		±20	μΑ	
I _{CC}	$V_I = V_{CC}$ or GND, $I_O = 0$	3.6 V			1		10		40	μΑ	
Δl _{CC}	One input at V _{CC} – 0.6 V, Other inputs at V _{CC} or GND	2.7 V to 3.6 V			500		500		5000	μΑ	
C _i	$V_I = V_{CC}$ or GND	3.3 V		4.5						pF	
C _o	$V_O = V_{CC}$ or GND	3.3 V	-	7						pF	

SN74LVC126A QUADRUPLE BUS BUFFER GATE WITH 3-STATE OUTPUTS

SCAS339Q-MARCH 1994-REVISED JULY 2005



Switching Characteristics

over recommended operating free-air temperature range (unless otherwise noted) (see Figure 1)

PARAMETER	FROM	то	V	T,	√ = 25°C	;	-40 TO	85°C	-40 TO 1	25°C	UNIT
PARAMETER	(INPUT)	(OUTPUT)	V _{cc}	MIN	TYP	MAX	MIN	MAX	MIN	MAX	Oilii
			1.8 V ± 0.15 V	1	4.2	9.3	1	9.8	1	11.3	
	^	Υ	2.5 V ± 0.2 V	1	2.7	6.7	1	7.2	1	9.3	20
t _{pd} A	A	ī	2.7 V	1	2.9	5	1	5.2	1	6.5	ns
			3.3 V \pm 0.3 V	1	2.5	4.5	1	4.7	1	6	
			1.8 V ± 0.15 V	1	4.8	9.5	1	10	1	11.5	ns
	OE	Υ	2.5 V ± 0.2 V	1	2.8	7.8	1	8.3	1	10.4	
t _{en}	OE	Ť	2.7 V	1	3.1	6.1	1	6.3	1	8	
			3.3 V ± 0.3 V	1	2.5	5.5	1	5.7	1	7.5	
			1.8 V ± 0.15 V	1	4.4	12.1	1	12.6	1	14.1	
	OE	Y	2.5 V ± 0.2 V	1	2.7	8.2	1	8.7	1	10.8	
t _{dis}	OE		2.7 V	1	2.7	6.5	1	6.7	1	8.5	ns
			$3.3~V \pm 0.3~V$	1.3	2.3	5.8	1.3	6	1.3	7.5	
t _{sk(o)}			3.3 V ± 0.3 V					1		1.5	ns

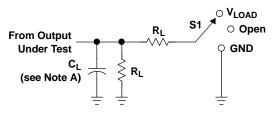
Operating Characteristics

T_A = 25°C

	PARAMETER		TEST CONDITIONS	V _{cc}	TYP	UNIT
			1.8 V	20		
	Outputs enabled		2.5 V	21		
_	Dower dissination conscitance per gate		f = 10 MHz	3.3 V	22	pF
C _{pd}	Power dissipation capacitance per gate			1.8 V	2	
		Outputs disabled		2.5 V	3	
				3.3 V	4	



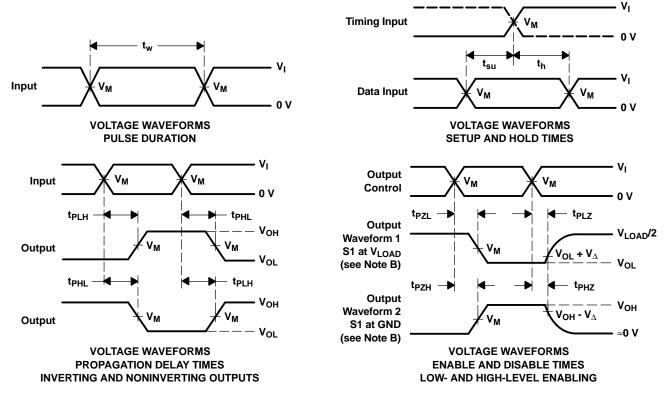
PARAMETER MEASUREMENT INFORMATION



TEST	S1
t _{PLH} /t _{PHL}	Open
t _{PLZ} /t _{PZL}	V _{LOAD}
t _{PHZ} /t _{PZH}	GND

LOAD CIRCUIT

INPUT		PUTS	.,	.,		_	.,
V _{CC}	VI	t _r /t _f	V _M	V _{LOAD}	CL	R _L	$oldsymbol{V}_{\Delta}$
1.8 V ± 0.15 V	V _{CC}	≤2 ns	V _{CC} /2	2×V _{CC}	30 pF	1 kΩ	0.15 V
2.5 V \pm 0.2 V	V _{CC}	≤2 ns	V _{CC} /2	2×V _{CC}	30 pF	500 Ω	0.15 V
2.7 V	2.7 V	≤2.5 ns	1.5 V	6 V	50 pF	500 Ω	0.3 V
3.3 V \pm 0.3 V	2.7 V	≤2.5 ns	1.5 V	6 V	50 pF	500 Ω	0.3 V



NOTES: A. C_L includes probe and jig capacitance.

- B. Waveform 1 is for an output with internal conditions such that the output is low, except when disabled by the output control. Waveform 2 is for an output with internal conditions such that the output is high, except when disabled by the output control.
- C. All input pulses are supplied by generators having the following characteristics: PRR \leq 10 MHz, $Z_0 = 50 \ \Omega$.
- 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 1. Load Circuit and Voltage Waveforms



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PACKAGING INFORMATION

Orderable Device	Status (1)	Package Type	Package Drawing	Pins	Packag Qty	e Eco Plan ⁽²⁾	Lead/Ball Finish	MSL Peak Temp (3)
SN74LVC126AD	ACTIVE	SOIC	D	14	50	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM
SN74LVC126ADBLE	OBSOLETE	SSOP	DB	14		TBD	Call TI	Call TI
SN74LVC126ADBR	ACTIVE	SSOP	DB	14	2000	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM
SN74LVC126ADBRE4	ACTIVE	SSOP	DB	14	2000	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM
SN74LVC126ADBRG4	ACTIVE	SSOP	DB	14	2000	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM
SN74LVC126ADE4	ACTIVE	SOIC	D	14	50	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM
SN74LVC126ADG4	ACTIVE	SOIC	D	14	50	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM
SN74LVC126ADGVR	ACTIVE	TVSOP	DGV	14	2000	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM
SN74LVC126ADGVRE4	ACTIVE	TVSOP	DGV	14	2000	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM
SN74LVC126ADGVRG4	ACTIVE	TVSOP	DGV	14	2000	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM
SN74LVC126ADR	ACTIVE	SOIC	D	14	2500	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM
SN74LVC126ADRE4	ACTIVE	SOIC	D	14	2500	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM
SN74LVC126ADRG4	ACTIVE	SOIC	D	14	2500	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM
SN74LVC126ADT	ACTIVE	SOIC	D	14	250	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM
SN74LVC126ADTE4	ACTIVE	SOIC	D	14	250	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM
SN74LVC126ADTG4	ACTIVE	SOIC	D	14	250	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM
SN74LVC126ANSR	ACTIVE	SO	NS	14	2000	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM
SN74LVC126ANSRE4	ACTIVE	SO	NS	14	2000	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM
SN74LVC126ANSRG4	ACTIVE	SO	NS	14	2000	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM
SN74LVC126APW	ACTIVE	TSSOP	PW	14	90	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM
SN74LVC126APWE4	ACTIVE	TSSOP	PW	14	90	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM
SN74LVC126APWG4	ACTIVE	TSSOP	PW	14	90	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM
SN74LVC126APWLE	OBSOLETE	TSSOP	PW	14		TBD	Call TI	Call TI
SN74LVC126APWR	ACTIVE	TSSOP	PW	14	2000	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM
SN74LVC126APWRE4	ACTIVE	TSSOP	PW	14	2000	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM
SN74LVC126APWRG4	ACTIVE	TSSOP	PW	14	2000	Green (RoHS &	CU NIPDAU	Level-1-260C-UNLIM

PACKAGE OPTION ADDENDUM

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Orderable Device	Status ⁽¹⁾	Package Type	Package Drawing	Pins	Package Qty	Eco Plan ⁽²⁾	Lead/Ball Finish	MSL Peak Temp ⁽³⁾
						no Sb/Br)		
SN74LVC126APWT	ACTIVE	TSSOP	PW	14	250	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM
SN74LVC126APWTE4	ACTIVE	TSSOP	PW	14	250	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM
SN74LVC126APWTG4	ACTIVE	TSSOP	PW	14	250	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM
SN74LVC126ARGYR	ACTIVE	VQFN	RGY	14	3000	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-2-260C-1 YEAR
SN74LVC126ARGYRG4	ACTIVE	VQFN	RGY	14	3000	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-2-260C-1 YEAR

⁽¹⁾ 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), Pb-Free (RoHS Exempt), 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.

Pb-Free (RoHS Exempt): This component has a RoHS exemption for either 1) lead-based flip-chip solder bumps used between the die and package, or 2) lead-based die adhesive used between the die and leadframe. The component is otherwise considered Pb-Free (RoHS compatible) as defined above.

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.

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 SN74LVC126A:

Automotive: SN74LVC126A-Q1

NOTE: Qualified Version Definitions:

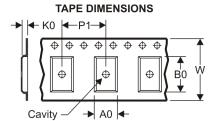
Automotive - Q100 devices qualified for high-reliability automotive applications targeting zero defects

PACKAGE MATERIALS INFORMATION

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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		SPQ	Reel Diameter (mm)	Reel Width W1 (mm)	A0 (mm)	B0 (mm)	K0 (mm)	P1 (mm)	W (mm)	Pin1 Quadrant
SN74LVC126ADBR	SSOP	DB	14	2000	330.0	16.4	8.2	6.6	2.5	12.0	16.0	Q1
SN74LVC126ADGVR	TVSOP	DGV	14	2000	330.0	12.4	6.8	4.0	1.6	8.0	12.0	Q1
SN74LVC126ADR	SOIC	D	14	2500	330.0	16.4	6.5	9.0	2.1	8.0	16.0	Q1
SN74LVC126ANSR	SO	NS	14	2000	330.0	16.4	8.2	10.5	2.5	12.0	16.0	Q1
SN74LVC126APWR	TSSOP	PW	14	2000	330.0	12.4	7.0	5.6	1.6	8.0	12.0	Q1
SN74LVC126ARGYR	VQFN	RGY	14	3000	180.0	12.4	3.75	3.75	1.15	8.0	12.0	Q1

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*All dimensions are nominal

Device	Package Type	Package Drawing	Pins	SPQ	Length (mm)	Width (mm)	Height (mm)
SN74LVC126ADBR	SSOP	DB	14	2000	346.0	346.0	33.0
SN74LVC126ADGVR	TVSOP	DGV	14	2000	346.0	346.0	29.0
SN74LVC126ADR	SOIC	D	14	2500	346.0	346.0	33.0
SN74LVC126ANSR	SO	NS	14	2000	346.0	346.0	33.0
SN74LVC126APWR	TSSOP	PW	14	2000	346.0	346.0	29.0
SN74LVC126ARGYR	VQFN	RGY	14	3000	190.5	212.7	31.8

DGV (R-PDSO-G**)

24 PINS SHOWN

PLASTIC SMALL-OUTLINE



NOTES: A. All linear dimensions are in millimeters.

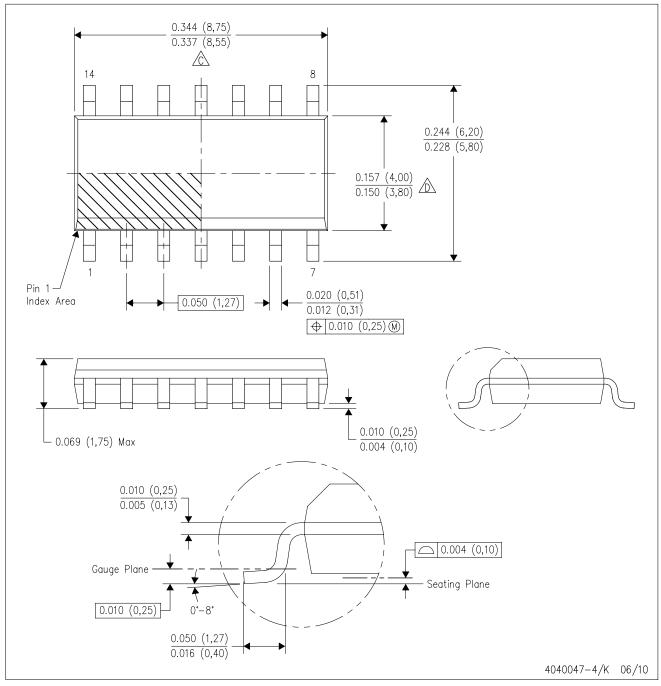
B. This drawing is subject to change without notice.

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

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

D (R-PDSO-G14)

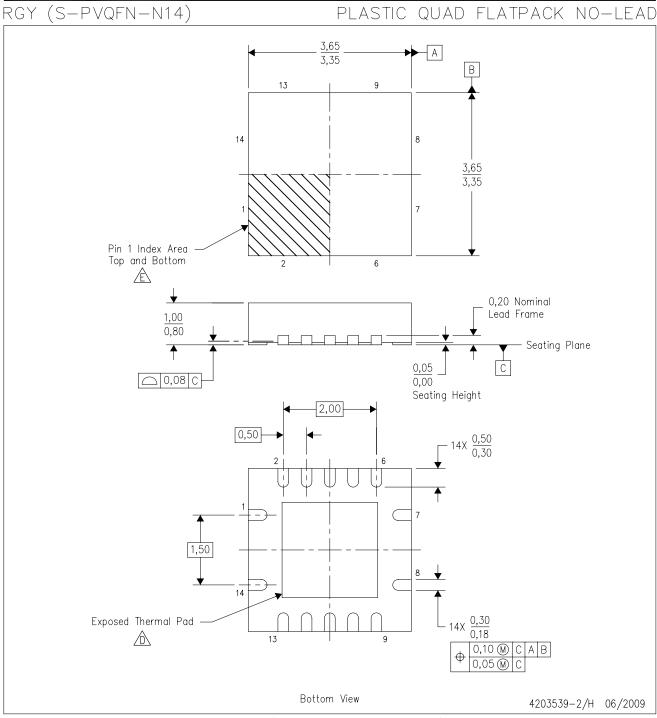
PLASTIC SMALL-OUTLINE PACKAGE



NOTES:

- A. All linear dimensions are in inches (millimeters).
- B. This drawing is subject to change without notice.
- Body length does not include mold flash, protrusions, or gate burrs. Mold flash, protrusions, or gate burrs shall not exceed .006 (0,15) per end.
- Body width does not include interlead flash. Interlead flash shall not exceed .017 (0,43) per side.
- E. Reference JEDEC MS-012 variation AB.





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

- B. This drawing is subject to change without notice.
- C. QFN (Quad Flatpack No—Lead) package configuration.
- The package thermal pad must be soldered to the board for thermal and mechanical performance. See the Product Data Sheet for details regarding the exposed thermal pad dimensions.
- Pin 1 identifiers are located on both top and bottom of the package and within the zone indicated. The Pin 1 identifiers are either a molded, marked, or metal feature.
- F. Package complies to JEDEC MO-241 variation BA.



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.



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

PW (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.

D. Falls within JEDEC MO-153

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