

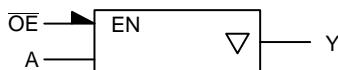
# Non-Inverting 3-State Buffer

## NL17SZ125

The NL17SZ125 is a single non-inverting 3-state buffer in tiny footprint packages.

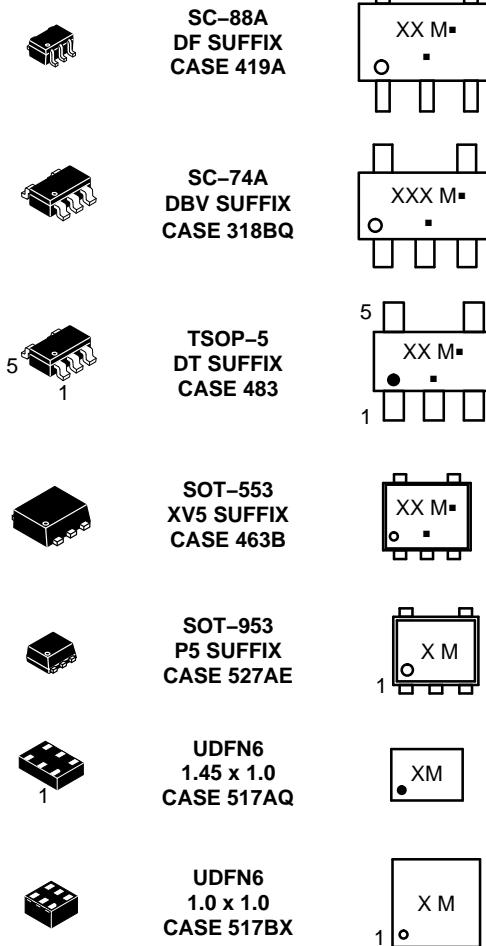
### Features

- Designed for 1.65 V to 5.5 V V<sub>CC</sub> Operation
- 2.3 ns t<sub>PD</sub> at V<sub>CC</sub> = 5 V (typ)
- Inputs/Outputs Overvoltage Tolerant up to 5.5 V
- I<sub>OFF</sub> Supports Partial Power Down Protection
- Source/Sink 24 mA at 3.0 V
- Available in SC-88A, SC-74A, TSOP-5, SOT-553, SOT-953 and UDFN6 Packages
- Chip Complexity < 100 FETs
- NLV Prefix for Automotive and Other Applications Requiring Unique Site and Control Change Requirements; AEC-Q100 Qualified and PPAP Capable
- These Devices are Pb-Free, Halogen Free/BFR Free and are RoHS Compliant



**Figure 1. Logic Symbol**

### MARKING DIAGRAMS



XX = Specific Device Code  
M = Date Code\*  
- = Pb-Free Package

(Note: Microdot may be in either location)

\*Date Code orientation and/or position may vary depending upon manufacturing location.

### ORDERING INFORMATION

See detailed ordering and shipping information on page 7 of this data sheet.

# NL17SZ125

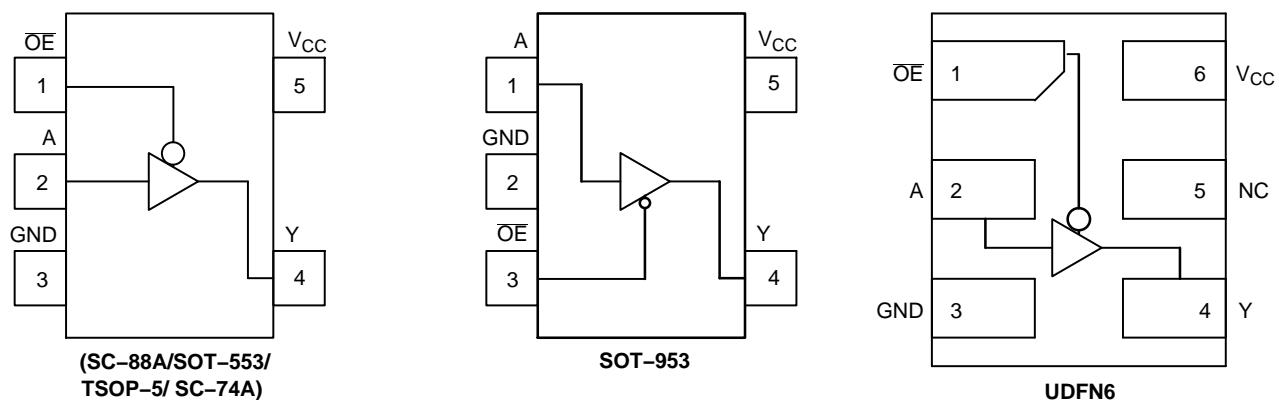


Figure 2. Pinout (Top View)

## PIN ASSIGNMENT

(SC-88A/SOT-553/ TSOP-5/SC-74A)

Pin	Function
1	$\overline{OE}$
2	A
3	GND
4	Y
5	$V_{CC}$

## PIN ASSIGNMENT (SOT-953)

Pin	Function
1	A
2	GND
3	$\overline{OE}$
4	Y
5	$V_{CC}$

## PIN ASSIGNMENT (UDFN)

Pin	Function
1	$\overline{OE}$
2	A
3	GND
4	Y
5	NC
6	$V_{CC}$

## FUNCTION TABLE

Input		Output
$\overline{OE}$	A	Y
L	L	L
L	H	H
H	X	Z

X = Don't Care

# NL17SZ125

## MAXIMUM RATINGS

Symbol	Characteristics	Value	Unit
V <sub>CC</sub>	DC Supply Voltage TSOP-5, SC-88A (NLV) SC-74A, SC-88A, SOT-953, SOT-553, UDFN6	-0.5 to +7.0 -0.5 to +6.5	V
V <sub>IN</sub>	DC Input Voltage TSOP-5, SC-88A (NLV) SC-74A, SC-88A, SOT-953, SOT-553, UDFN6	-0.5 to +7.0 -0.5 to +6.5	V
V <sub>OUT</sub>	DC Output Voltage TSOP-5, SC-88A (NLV) Active–Mode (High or Low State) Tri–State Mode (Note 1) Power–Down Mode (V <sub>CC</sub> = 0 V)	-0.5 to V <sub>CC</sub> + 0.5 -0.5 to +7.0 -0.5 to +7.0	V
	DC Output Voltage SC-74A, SC-88A, SOT-953, SOT-553, UDFN6 Active–Mode (High or Low State) Tri–State Mode (Note 1) Power–Down Mode (V <sub>CC</sub> = 0 V)	-0.5 to V <sub>CC</sub> + 0.5 -0.5 to +6.5 -0.5 to +6.5	V
I <sub>IK</sub>	DC Input Diode Current V <sub>IN</sub> < GND	-50	mA
I <sub>OK</sub>	DC Output Diode Current V <sub>OUT</sub> < GND	-50	mA
I <sub>OUT</sub>	DC Output Source/Sink Current	±50	mA
I <sub>CC</sub> or I <sub>GND</sub>	DC Supply Current per Supply Pin or Ground Pin	±100	mA
T <sub>STG</sub>	Storage Temperature Range	-65 to +150	°C
T <sub>L</sub>	Lead Temperature, 1 mm from Case for 10 secs	260	°C
T <sub>J</sub>	Junction Temperature Under Bias	+150	°C
θ <sub>JA</sub>	Thermal Resistance (Note 2)  SC-88A SC-74A SOT-553 SOT-953 UDFN6	377 320 324 254 154	°C/W
P <sub>D</sub>	Power Dissipation in Still Air  SC-88A SC-74A SOT-553 SOT-953 UDFN6	332 390 386 491 812	mW
MSL	Moisture Sensitivity	Level 1	—
F <sub>R</sub>	Flammability Rating Oxygen Index: 28 to 34	UL 94 V-0 @ 0.125 in	—
V <sub>ESD</sub>	ESD Withstand Voltage (Note 3) Human Body Model Charged Device Model	2000 1000	V
I <sub>Latchup</sub>	Latchup Performance (Note 4)	±100	mA

Stresses exceeding those listed in the Maximum Ratings table may damage the device. If any of these limits are exceeded, device functionality should not be assumed, damage may occur and reliability may be affected.

- Applicable to devices with outputs that may be tri–stated.
- Measured with minimum pad spacing on an FR4 board, using 10mm–by–1inch, 2 ounce copper trace no air flow per JESD51–7.
- HBM tested to ANSI/ESDA/JEDEC JS–001–2017. CDM tested to EIA/JESD22–C101–F. JEDEC recommends that ESD qualification to EIA/JESD22–A115–A (Machine Model) be discontinued per JEDEC/JEP172A.
- Tested to EIA/JESD78 Class II.

## RECOMMENDED OPERATING CONDITIONS

Symbol	Characteristics		Min	Max	Unit
$V_{CC}$	Positive DC Supply Voltage		1.65	5.5	V
$V_{IN}$	DC Input Voltage		0	5.5	V
$V_{OUT}$	DC Output Voltage	Active–Mode (High or Low State) Tri–State Mode (Note 1) Power–Down Mode ( $V_{CC} = 0$ V)	0 0 0	$V_{CC}$ 5.5 5.5	
$T_A$	Operating Temperature Range		-55	+125	°C
$t_r, t_f$	Input Rise and Fall Time TSOP–5, SC–88A (NLV)	$V_{CC} = 3.0$ V to 3.6 V $V_{CC} = 4.5$ V to 5.5 V	0 0	100 20	ns/V
	Input Rise and Fall Time (SC–74A, SC–88A, SOT–953, SOT–553, UDFN6)	$V_{CC} = 1.65$ V to 1.95 V $V_{CC} = 2.3$ V to 2.7 V $V_{CC} = 3.0$ V to 3.6 V $V_{CC} = 4.5$ V to 5.5 V	0 0 0 0	20 20 10 5	

Functional operation above the stresses listed in the Recommended Operating Ranges is not implied. Extended exposure to stresses beyond the Recommended Operating Ranges limits may affect device reliability.

## DC ELECTRICAL CHARACTERISTICS

Symbol	Parameter	Condition	$V_{CC}$ (V)	$T_A = 25^\circ\text{C}$			$-55^\circ\text{C} \leq T_A \leq 125^\circ\text{C}$		Units
				Min	Typ	Max	Min	Max	
$V_{IH}$	High–Level Input Voltage (NLV)		1.65 to 1.95	$0.75 \times V_{CC}$	—	—	$0.75 \times V_{CC}$	—	V
			2.3 to 5.5	$0.70 \times V_{CC}$	—	—	$0.70 \times V_{CC}$	—	
	High–Level Input Voltage		1.65 to 1.95	$0.65 \times V_{CC}$	—	—	$0.65 \times V_{CC}$	—	V
			2.3 to 5.5	$0.70 \times V_{CC}$	—	—	$0.70 \times V_{CC}$	—	
$V_{IL}$	Low–Level Input Voltage (NLV)		1.65 to 1.95	—	—	$0.25 \times V_{CC}$	—	$0.25 \times V_{CC}$	V
			2.3 to 5.5	—	—	$0.30 \times V_{CC}$	—	$0.30 \times V_{CC}$	
	Low–Level Input Voltage		1.65 to 1.95	—	—	$0.35 \times V_{CC}$	—	$0.35 \times V_{CC}$	V
			2.3 to 5.5	—	—	$0.30 \times V_{CC}$	—	$0.30 \times V_{CC}$	
$V_{OH}$	High–Level Output Voltage	$V_{IN} = V_{IH}$ or $V_{IL}$ $I_{OH} = -100$ $\mu\text{A}$ $I_{OH} = -4$ mA $I_{OH} = -8$ mA $I_{OH} = -12$ mA $I_{OH} = -16$ mA $I_{OH} = -24$ mA $I_{OH} = -32$ mA	1.65 to 5.5 1.65	$V_{CC} - 0.1$ 1.29 1.9 2.1 2.2 2.4 2.7 2.5 3.8	$V_{CC}$ 1.4 1.9 2.1 2.2 2.4 2.7 2.5 3.8	— — — — — — — —	$V_{CC} - 0.1$ 1.29 1.9 2.2 2.4 2.3 3.8	— — — — — — — —	V
$V_{OL}$	Low–Level Output Voltage	$V_{IN} = V_{IH}$ or $V_{IL}$ $I_{OL} = 100$ $\mu\text{A}$ $I_{OL} = 4$ mA $I_{OL} = 8$ mA $I_{OL} = 12$ mA $I_{OL} = 16$ mA $I_{OL} = 24$ mA $I_{OL} = 32$ mA	1.65 to 5.5 1.65	— — — — — — — —	0.08 0.2 0.22 0.28 0.38 0.42	0.1 0.3 0.4 0.4 0.55 0.55	— — — — — —	0.1 0.24 0.3 0.4 0.4 0.55	V
$I_{IN}$	Input Leakage Current	$V_{IN} = 5.5$ V or GND	1.65 to 5.5	—	—	$\pm 0.1$	—	$\pm 1.0$	$\mu\text{A}$
$I_{OZ}$	3–State Output Leakage Current	$V_{OUT} = 0$ V to 5.5 V	1.65 to 5.5	—	—	$\pm 0.5$	—	$\pm 5.0$	$\mu\text{A}$
$I_{OFF}$	Power Off Leakage Current	$V_{IN} = 5.5$ V or $V_{OUT} = 5.5$ V	0	—	—	1.0	—	10	$\mu\text{A}$
$I_{CC}$	Quiescent Supply Current	$V_{IN} = V_{CC}$ or GND	5.5	—	—	1.0	—	10	$\mu\text{A}$

Product parametric performance is indicated in the Electrical Characteristics for the listed test conditions, unless otherwise noted. Product performance may not be indicated by the Electrical Characteristics if operated under different conditions.

## AC ELECTRICAL CHARACTERISTICS

Symbol	Parameter	Condition	V <sub>CC</sub> (V)	T <sub>A</sub> = 25°C			-55°C ≤ T <sub>A</sub> ≤ 125°C		Units
				Min	Typ	Max	Min	Max	
t <sub>PLH</sub> , t <sub>PHL</sub>	Propagation Delay, A to Y (Figures 3 and 4)	R <sub>L</sub> = 1 MΩ, C <sub>L</sub> = 15 pF	1.65 to 1.95	—	6.0	10	—	10.5	ns
		R <sub>L</sub> = 1 MΩ, C <sub>L</sub> = 15 pF	2.3 to 2.7	—	3.4	7.5	—	8.0	
		R <sub>L</sub> = 1 MΩ, C <sub>L</sub> = 15 pF	3.0 to 3.6	—	2.5	5.2	—	5.5	
		R <sub>L</sub> = 500 Ω, C <sub>L</sub> = 50 pF		—	2.9	5.7	—	6.0	
		R <sub>L</sub> = 1 MΩ, C <sub>L</sub> = 15 pF	4.5 to 5.5	—	2.0	4.5	—	4.8	
		R <sub>L</sub> = 500 Ω, C <sub>L</sub> = 50 pF		—	2.3	5.0	—	5.3	
t <sub>PZH</sub> , t <sub>PZL</sub>	Output Enable Time, OE to Y (Figures 3 and 4)		1.65 to 1.95	—	6.5	9.5	—	10	ns
			2.3 to 2.7	—	3.6	8.5	—	9.0	
			3.0 to 3.6	—	2.8	6.2	—	6.5	
			4.5 to 5.5	—	2.0	5.5	—	5.8	
t <sub>PHZ</sub> , t <sub>PLZ</sub>	Output Disable Time, OE to Y (Figures 3 and 4)		1.65 to 1.95	—	5.0	10	—	10.5	ns
			2.3 to 2.7	—	3.3	8.0	—	8.5	
			3.0 to 3.6	—	2.7	5.7	—	6.0	
			4.5 to 5.5	—	2.6	4.7	—	5.0	

## CAPACITIVE CHARACTERISTICS

Symbol	Parameter	Condition	Typical	Units
C <sub>IN</sub>	Input Capacitance	V <sub>CC</sub> = 5.5 V, V <sub>IN</sub> = 0 V or V <sub>CC</sub>	2.5	pF
C <sub>OUT</sub>	Output Capacitance	V <sub>CC</sub> = 5.5 V, V <sub>IN</sub> = 0 V or V <sub>CC</sub>	2.5	pF
C <sub>PD</sub>	Power Dissipation Capacitance (Note 5)	10 MHz, V <sub>CC</sub> = 3.3 V, V <sub>IN</sub> = 0 V or V <sub>CC</sub> 10 MHz, V <sub>CC</sub> = 5.5 V, V <sub>IN</sub> = 0 V or V <sub>CC</sub>	9 11	pF

5. C<sub>PD</sub> is defined as the value of the internal equivalent capacitance which is calculated from the operating current consumption without load. Average operating current can be obtained by the equation: I<sub>CC(OPR)</sub> = C<sub>PD</sub> • V<sub>CC</sub> • f<sub>in</sub> + I<sub>CC</sub>. C<sub>PD</sub> is used to determine the no-load dynamic power consumption; P<sub>D</sub> = C<sub>PD</sub> • V<sub>CC</sub><sup>2</sup> • f<sub>in</sub> + I<sub>CC</sub> • V<sub>CC</sub>.

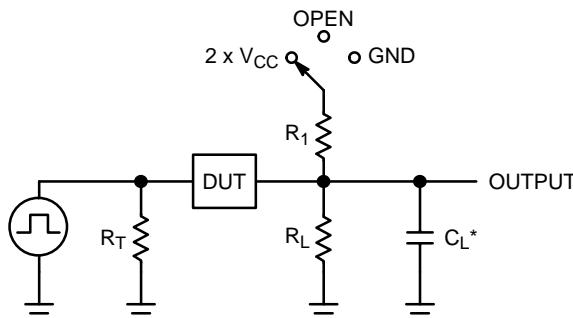


Figure 3. Test Circuit

Test	Switch Position	$C_L$ , pF	$R_L$ , $\Omega$	$R_1$ , $\Omega$
$t_{PLH} / t_{PHL}$	Open	See AC Characteristics Table		
$t_{PLZ} / t_{PZL}$	$2 \times V_{CC}$	50	500	500
$t_{PHZ} / t_{PZH}$	GND	50	500	500

X = Don't Care

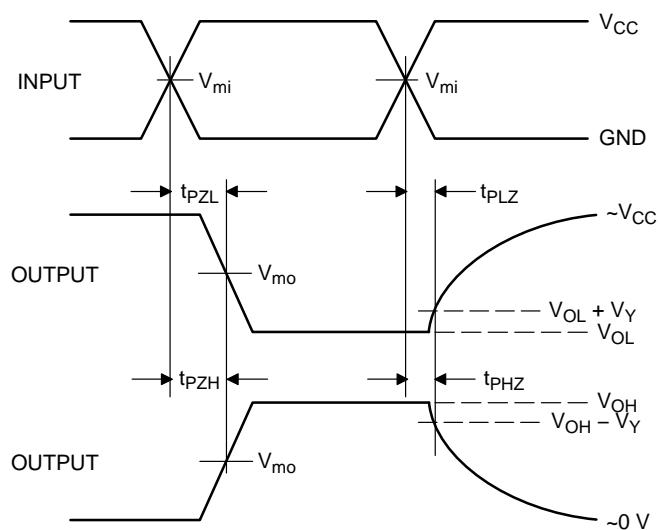
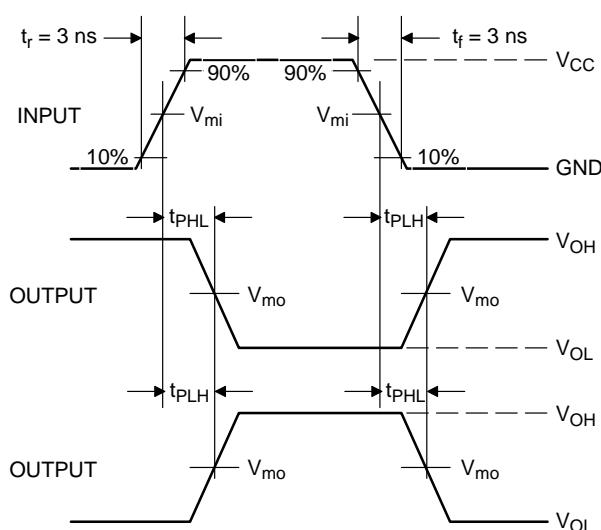


Figure 4. Switching Waveforms

$V_{CC}$ , V	$V_{mi}$ , V	$V_{mo}$ , V		$V_Y$ , V
		$t_{PLH}, t_{PHL}$	$t_{PZL}, t_{PLZ}, t_{PZH}, t_{PHZ}$	
1.65 to 1.95	$V_{CC}/2$	$V_{CC}/2$	$V_{CC}/2$	0.15
2.3 to 2.7	$V_{CC}/2$	$V_{CC}/2$	$V_{CC}/2$	0.15
3.0 to 3.6	$V_{CC}/2$	$V_{CC}/2$	$V_{CC}/2$	0.3
4.5 to 5.5	$V_{CC}/2$	$V_{CC}/2$	$V_{CC}/2$	0.3

# NL17SZ125

## DEVICE ORDERING INFORMATION

Device	Packages	Specific Device Code	Pin 1 Orientation (See below)	Shipping <sup>†</sup>
NL17SZ125DFT2G	SC-88A	M0	Q4	3000 / Tape & Reel
NL17SZ125DFT2G-F22038**	SC-88A	M0	Q4	3000 / Tape & Reel
NLV17SZ125DFT2G*	SC-88A	M0	Q4	3000 / Tape & Reel
NL17SZ125DBVT1G	SC-74A	M0	Q4	3000 / Tape & Reel
NL17SZ125DTT1G**	TSOP-5	M0	Q4	3000 / Tape & Reel
NL17SZ125XV5T2G	SOT-553	M0	Q4	4000 / Tape & Reel
NL17SZ125XV5T2G-L22087**	SOT-553	M0	Q4	4000 / Tape & Reel
NL17SZ125P5T5G	SOT-953	Q (Rotated 180° CW)	Q2	8000 / Tape & Reel
NL17SZ125MU1TCG (In Development)	UDFN6, 1.45 x 1.0, 0.5P	TBD	Q4	3000 / Tape & Reel
NL17SZ125MU3TCG	UDFN6, 1.0 x 1.0, 0.35P	A	Q4	3000 / Tape & Reel

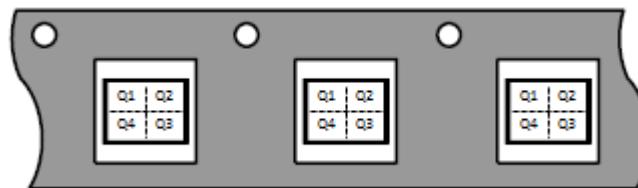
†For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specifications Brochure, BRD8011/D.

\*NLV Prefix for Automotive and Other Applications Requiring Unique Site and Control Change Requirements; AEC-Q100 Qualified and PPAP Capable.

\*\* Please refer to NLV specifications for this device.

### Pin 1 Orientation in Tape and Reel

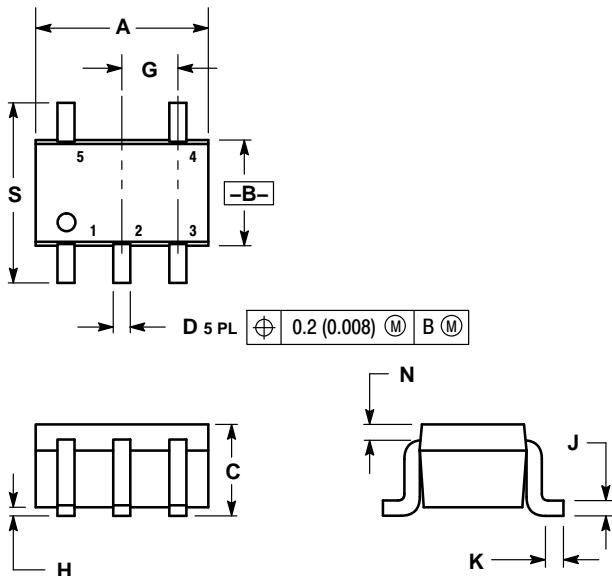
#### Direction of Feed



# NL17SZ125

## PACKAGE DIMENSIONS

### SC-88A (SC-70-5/SOT-353) CASE 419A-02 ISSUE L

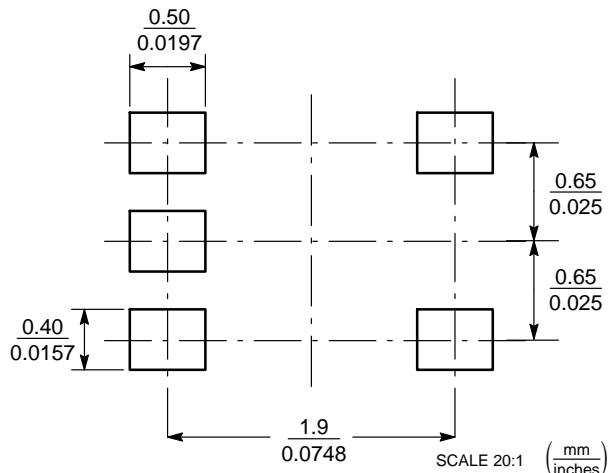


#### NOTES:

1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
2. CONTROLLING DIMENSION: INCH.
3. 419A-01 OBSOLETE. NEW STANDARD 419A-02.
4. DIMENSIONS A AND B DO NOT INCLUDE MOLD FLASH, PROTRUSIONS, OR GATE BURRS.

DIM	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.071	0.087	1.80	2.20
B	0.045	0.053	1.15	1.35
C	0.031	0.043	0.80	1.10
D	0.004	0.012	0.10	0.30
G	0.026 BSC	0.065 BSC		
H	---	0.004	---	0.10
J	0.004	0.010	0.10	0.25
K	0.004	0.012	0.10	0.30
N	0.008 REF	0.20 REF		
S	0.079	0.087	2.00	2.20

## SOLDER FOOTPRINT



#### STYLE 1:

PIN 1. BASE  
2. Emitter  
3. BASE  
4. COLLECTOR  
5. COLLECTOR

#### STYLE 2:

PIN 1. ANODE  
2. Emitter  
3. BASE  
4. COLLECTOR  
5. CATHODE

#### STYLE 3:

PIN 1. ANODE 1  
2. N/C  
3. ANODE 2  
4. CATHODE 2  
5. CATHODE 1

#### STYLE 4:

PIN 1. SOURCE 1  
2. DRAIN 1/2  
3. SOURCE 1  
4. GATE 1  
5. GATE 2

#### STYLE 5:

PIN 1. CATHODE  
2. COMMON ANODE  
3. CATHODE 2  
4. CATHODE 3  
5. CATHODE 4

#### STYLE 6:

PIN 1. Emitter 2  
2. BASE 2  
3. Emitter 1  
4. COLLECTOR  
5. COLLECTOR 2/BASE 1

#### STYLE 7:

PIN 1. BASE  
2. Emitter  
3. BASE  
4. COLLECTOR  
5. COLLECTOR

#### STYLE 8:

PIN 1. CATHODE  
2. COLLECTOR  
3. N/C  
4. BASE  
5. Emitter

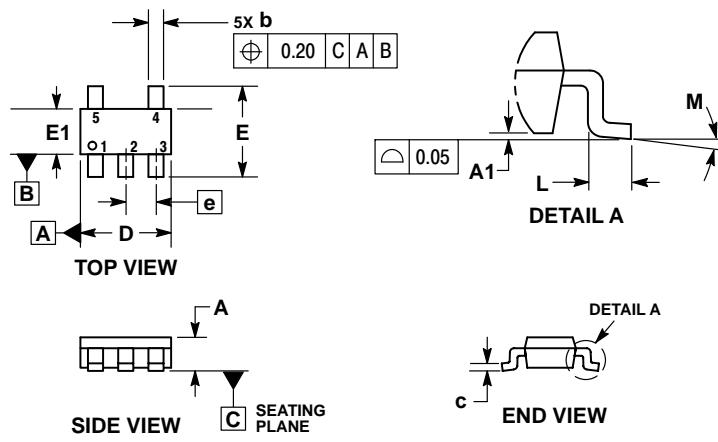
#### STYLE 9:

PIN 1. ANODE  
2. CATHODE  
3. ANODE  
4. ANODE  
5. ANODE

Note: Please refer to datasheet for style callout. If style type is not called out in the datasheet refer to the device datasheet pinout or pin assignment.

## PACKAGE DIMENSIONS

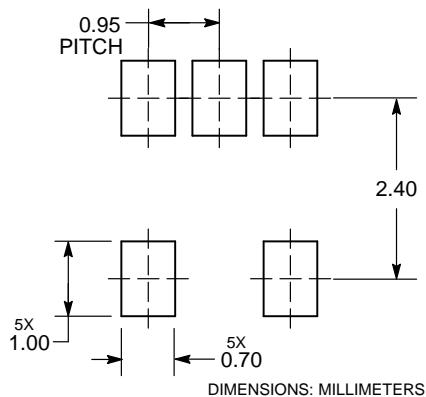
**SC-74A**  
CASE 318BQ  
ISSUE B



## NOTES:

1. DIMENSIONING AND TOLERANCING PER ASME Y14.5M, 1994.
2. CONTROLLING DIMENSION: MILLIMETERS.
3. MAXIMUM LEAD THICKNESS INCLUDES LEAD FINISH THICKNESS. MINIMUM LEAD THICKNESS IS THE MINIMUM THICKNESS OF BASE MATERIAL.
4. DIMENSIONS A AND B DO NOT INCLUDE MOLD FLASH, PROTRUSIONS, OR GATE BURRS. MOLD FLASH, PROTRUSIONS, OR GATE BURRS SHALL NOT EXCEED 0.15 PER SIDE.

DIM	MILLIMETERS	
	MIN	MAX
A	0.90	1.10
A1	0.01	0.10
b	0.25	0.50
c	0.10	0.26
D	2.85	3.15
E	2.50	3.00
E1	1.35	1.65
e	0.95 BSC	
L	0.20	0.60
M	0 °	10 °

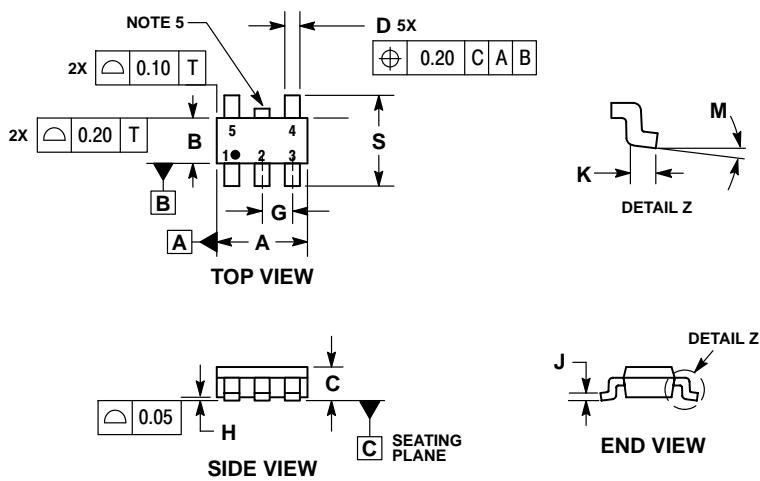
RECOMMENDED  
SOLDERING FOOTPRINT\*

DIMENSIONS: MILLIMETERS

\*For additional information on our Pb-Free strategy and soldering details, please download the ON Semiconductor Soldering and Mounting Techniques Reference Manual, SOLDERRM/D.

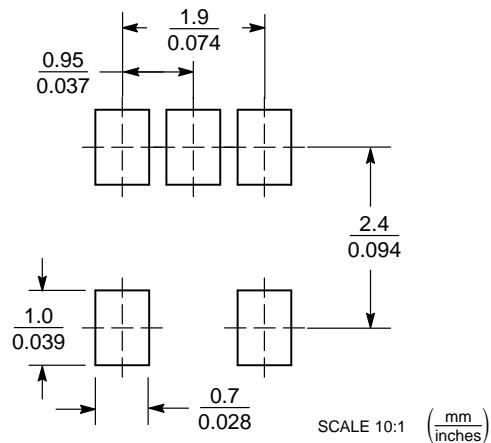
## PACKAGE DIMENSIONS

**TSOP-5**  
CASE 483  
ISSUE N



- NOTES:
1. DIMENSIONING AND TOLERANCING PER ASME Y14.5M, 1994.
  2. CONTROLLING DIMENSION: MILLIMETERS.
  3. MAXIMUM LEAD THICKNESS INCLUDES LEAD FINISH THICKNESS. MINIMUM LEAD THICKNESS IS THE MINIMUM THICKNESS OF BASE MATERIAL.
  4. DIMENSIONS A AND B DO NOT INCLUDE MOLD FLASH, PROTRUSIONS, OR GATE BURRS. MOLD FLASH, PROTRUSIONS, OR GATE BURRS SHALL NOT EXCEED 0.15 PER SIDE, DIMENSION A.
  5. OPTIONAL CONSTRUCTION: AN ADDITIONAL TRIMMED LEAD IS ALLOWED IN THIS LOCATION. TRIMMED LEAD NOT TO EXTEND MORE THAN 0.2 FROM BODY.

	MILLIMETERS	
DIM	MIN	MAX
A	2.85	3.15
B	1.35	1.65
C	0.90	1.10
D	0.25	0.50
G	0.95 BSC	
H	0.01	0.10
J	0.10	0.26
K	0.20	0.60
M	0 °	10 °
S	2.50	3.00

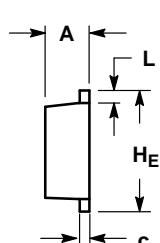
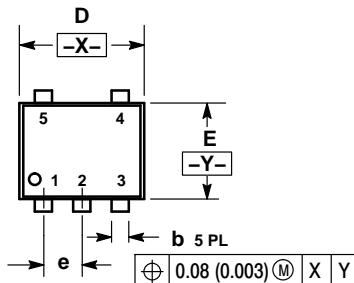
**SOLDERING FOOTPRINT\***

\*For additional information on our Pb-Free strategy and soldering details, please download the ON Semiconductor Soldering and Mounting Techniques Reference Manual, SOLDERRM/D.

# NL17SZ125

## PACKAGE DIMENSIONS

### SOT-553, 5 LEAD CASE 463B ISSUE C

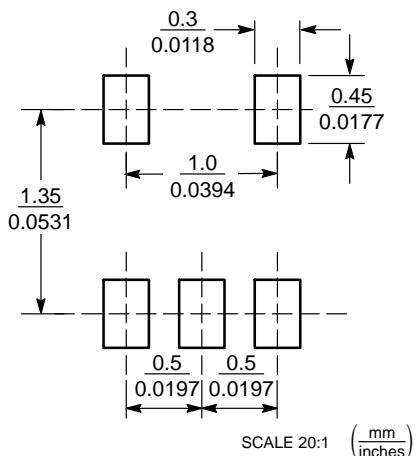


#### NOTES:

1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
2. CONTROLLING DIMENSION: MILLIMETERS
3. MAXIMUM LEAD THICKNESS INCLUDES LEAD FINISH THICKNESS. MINIMUM LEAD THICKNESS IS THE MINIMUM THICKNESS OF BASE MATERIAL.

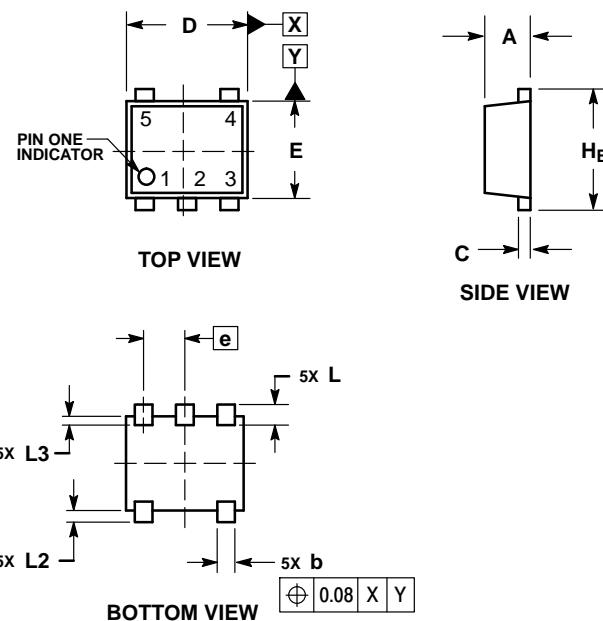
DIM	MILLIMETERS			INCHES		
	MIN	NOM	MAX	MIN	NOM	MAX
A	0.50	0.55	0.60	0.020	0.022	0.024
b	0.17	0.22	0.27	0.007	0.009	0.011
c	0.08	0.13	0.18	0.003	0.005	0.007
D	1.55	1.60	1.65	0.061	0.063	0.065
E	1.15	1.20	1.25	0.045	0.047	0.049
e	0.50 BSC			0.020 BSC		
L	0.10	0.20	0.30	0.004	0.008	0.012
H <sub>E</sub>	1.55	1.60	1.65	0.061	0.063	0.065

### SOLDERING FOOTPRINT\*



\*For additional information on our Pb-Free strategy and soldering details, please download the **onsemi** Soldering and Mounting Techniques Reference Manual, SOLDERRM/D.

## PACKAGE DIMENSIONS

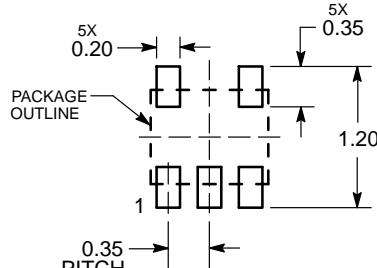
SOT-953  
CASE 527AE  
ISSUE E

## NOTES:

1. DIMENSIONING AND TOLERANCING PER ASME Y14.5M, 1994.
2. CONTROLLING DIMENSION: MILLIMETERS
3. MAXIMUM LEAD THICKNESS INCLUDES LEAD FINISH. MINIMUM LEAD THICKNESS IS THE MINIMUM THICKNESS OF THE BASE MATERIAL.
4. DIMENSIONS D AND E DO NOT INCLUDE MOLD FLASH, PROTRUSIONS, OR GATE BURRS.

DIM.	MILLIMETERS		
	MIN	NOM.	MAX
A	0.34	0.37	0.40
b	0.10	0.15	0.20
C	0.07	0.12	0.17
D	0.95	1.00	1.05
E	0.75	0.80	0.85
e	0.35 BSC		
H <sub>E</sub>	0.95	1.00	1.05
L	0.175 REF		
L <sub>2</sub>	0.05	0.10	0.15
L <sub>3</sub>	---	---	0.15

## SOLDERING FOOTPRINT\*

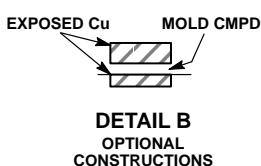
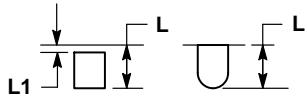
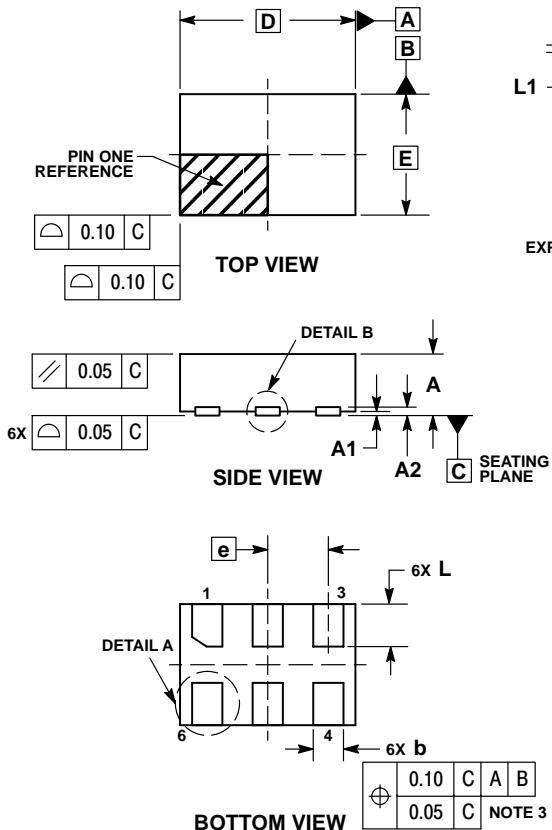


DIMENSIONS: MILLIMETERS

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## PACKAGE DIMENSIONS

**UDFN6, 1.45x1.0, 0.5P**  
**CASE 517AQ**  
**ISSUE O**

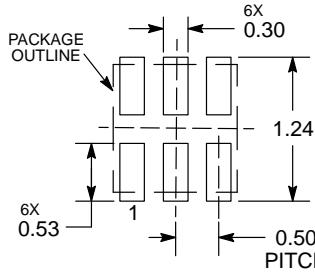


## NOTES:

1. DIMENSIONING AND TOLERANCING PER ASME Y14.5M, 1994.
2. CONTROLLING DIMENSION: MILLIMETERS.
3. DIMENSION b APPLIES TO PLATED TERMINAL AND IS MEASURED BETWEEN 0.15 AND 0.30 mm FROM THE TERMINAL TIP.

DIM	MILLIMETERS	
	MIN	MAX
A	0.45	0.55
A1	0.00	0.05
A2	0.07 REF	
b	0.20	0.30
D	1.45 BSC	
E	1.00 BSC	
e	0.50 BSC	
L	0.30	0.40
L1	---	0.15

## MOUNTING FOOTPRINT

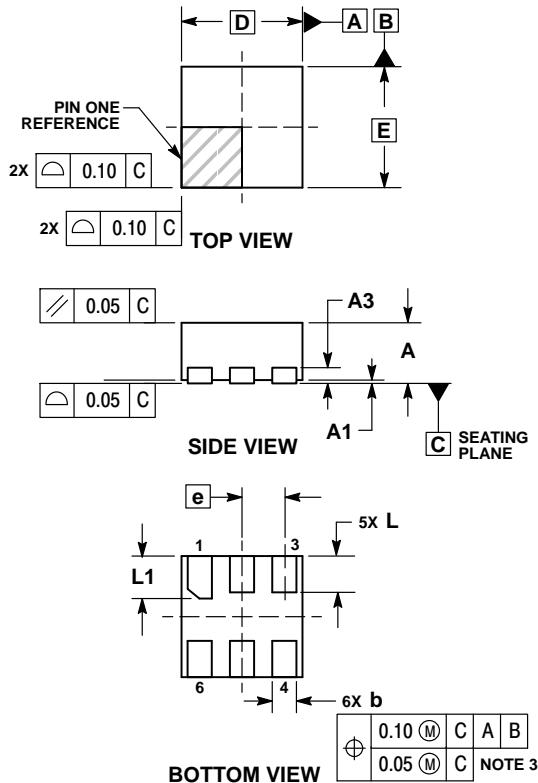


DIMENSIONS: MILLIMETERS

\*For additional information on our Pb-Free strategy and soldering details, please download the ON Semiconductor Soldering and Mounting Techniques Reference Manual, SOLDERRM/D.

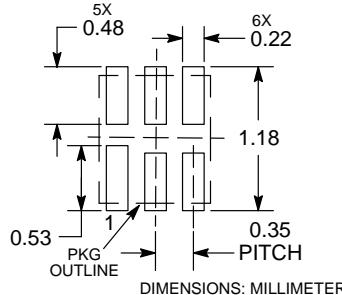
## PACKAGE DIMENSIONS

**UDFN6, 1x1, 0.35P**  
**CASE 517BX**  
**ISSUE O**



MILLIMETERS		
DIM	MIN	MAX
A	0.45	0.55
A1	0.00	0.05
A3	0.13 REF	
b	0.12	0.22
D	1.00 BSC	
E	0.35 BSC	
L	0.25	0.35
L1	0.30	0.40

**RECOMMENDED  
SOLDERING FOOTPRINT\***



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