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Single Inverter

NL17SV04

The NL17SV04 is a single inverter in tiny footprint packages. The device is designed to operate for $V_{CC} = 0.9$ V to 3.6 V.

Features

- Designed for 0.9 V to 3.6 V V_{CC} Operation
- 1.5 ns t_{PD} at 3.3 V (Typ)
- Inputs/Outputs Over−Voltage Tolerant up to 3.6 V
- I_{OFF} Supports Partial Power Down Protection
- Source/Sink 24 mA at 3.3 V
- Available in SOT−353, SOT−553, SOT−953, SC−74A and UDFN Packages
- 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
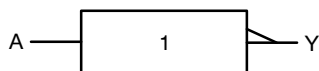
Figure 1. Logic Symbol

ON Semiconductor®

MARKING DIAGRAMS

SC−74A
CASE 318BQ
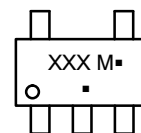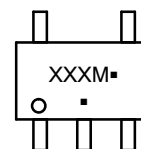
XXX M▪

SC−88A
(SC−70−5/SOT−353)
CASE 419A−02

XXXM▪

SOT−553, 5 LEAD
CASE 463B

XXM▪

SOT−953
CASE 527AE

XM

UDFN6, 1.45x1.0, 0.5P
CASE 517AQ

XM
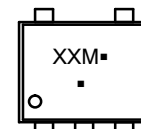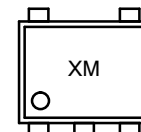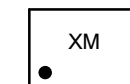
UDFN6, 1x1, 0.35P
CASE 517BX

X M
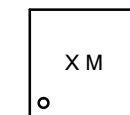
X, XX = Specific Device Code
M = Date Code*
▪ = Pb−Free Package
(Note: Microdot may be in either location)

*This information is generic. Please refer to device data sheet for actual part marking. Pb−Free indicator, "G" or microdot "▪", may or may not be present.

ORDERING INFORMATION

See detailed ordering, marking and shipping information in the package dimensions section on page 7 of this data sheet.

NL17SV04

(SC−88A / SOT−553 / SC−74A)　　**SOT−953**　　**UDFN6**
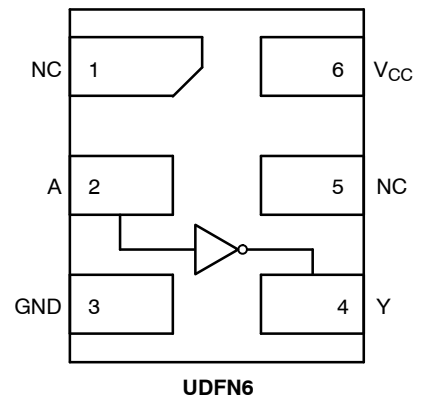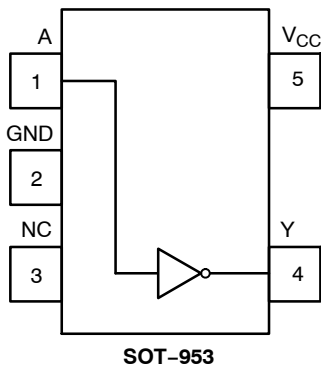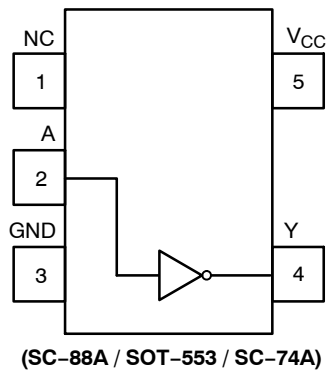
Figure 2. Pinout (Top View)

PIN ASSIGNMENT

Pin	SC−88A / SOT553 / SC−74A	SOT−953	UDFN6
1	NC	A	NC
2	A	GND	A
3	GND	NC	GND
4	Y	Y	Y
5	V_{CC}	V_{CC}	NC
6	−	−	V_{CC}

FUNCTION TABLE

Input	Output
A	**Y**
L	H
H	L

MAXIMUM RATINGS

Symbol	Characteristics		Value	Unit
V_{CC}	DC Supply Voltage		−0.5 to +4.3	V
V_{IN}	DC Input Voltage		−0.5 to +4.3	V
V_{OUT}	DC Output Voltage	Active−Mode (High or Low State) Tri−State Mode (Note 1) Power−Down Mode (V_{CC} = 0 V)	−0.5 to V_{CC} + 0.5 −0.5 to +4.3 −0.5 to +4.3	V
I_{IK}	DC Input Diode Current	V_{IN} < GND	−50	mA
I_{OK}	DC Output Diode Current	V_{OUT} < GND	−50	mA
I_{OUT}	DC Output Source/Sink Current		±50	mA
I_{CC} or I_{GND}	DC Supply Current per Supply Pin or Ground Pin		±50	mA
T_{STG}	Storage Temperature Range		−65 to +150	°C
T_L	Lead Temperature, 1 mm from Case for 10 Seconds		260	°C
T_J	Junction Temperature Under Bias		+150	°C
θ_{JA}	Thermal Resistance (Note 2)	SC−88A SOT−553 SOT−953 SC−74A UDFN6	377 324 254 320 154	°C/W
P_D	Power Dissipation in Still Air	SC−88A SOT−553 SOT−953 SC−74A UDFN6	332 386 491 390 812	mW
MSL	Moisture Sensitivity		Level 1	−
F_R	Flammability Rating	Oxygen Index: 28 to 34	UL 94 V−0 @ 0.125 in	−
V_{ESD}	ESD Withstand Voltage (Note 3)	Human Body Model Charged Device Model	2000 1000	V
$I_{Latchup}$	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.
1. Applicable to devices with outputs that may be tri−stated.
2. Measured with minimum pad spacing on an FR4 board, using 10 mm−by−1 inch, 2 ounce copper trace no air flow per JESD51−7.
3. HBM tested to EIA / JESD22−A114−A. CDM tested to JESD22−C101−A. JEDEC recommends that ESD qualification to EIA/JESD22−A115A (Machine Model) be discontinued.
4. Tested to EIA/JESD78 Class II.

NL17SV04

RECOMMENDED OPERATING CONDITIONS

Symbol	Parameter		Min	Max	Unit
V_{CC}	Positive DC Supply Voltage		0.9	3.6	V
V_{IN}	DC Input Voltage		0	3.6	V
V_{OUT}	DC Output Voltage	Active−Mode (High or Low State)	0	V_{CC}	
		Tri−State Mode (Note 1)	0	3.6	
		Power−Down Mode (V_{CC} = 0 V)	0	3.6	
T_A	Operating Temperature Range		−55	+125	°C
t_r , t_f	Input Transition Rise and Fall Time		0	20	ns/V

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°C			T_A = −55°C to +125°C		Unit
				Min	Typ	Max	Min	Max	
V_{IH}	High−Level Input Voltage		0.9	–	0.5	–	–	–	V
			1.1 to 1.3	0.65 x V_{CC}	–	–	0.65 x V_{CC}	–	
			1.4 to 1.6	0.65 x V_{CC}	–	–	0.65 x V_{CC}	–	
			1.65 to 1.95	0.65 x V_{CC}	–	–	0.65 x V_{CC}	–	
			2.3 to < 2.7	1.6	–	–	1.6	–	
			2.7 to 3.6	2.0	–	–	2.0	–	
V_{IL}	Low−Level Input Voltage		0.9	–	0.5	–	–	–	V
			1.1 to 1.3	–	–	0.35 x V_{CC}	–	0.35 x V_{CC}	
			1.4 to 1.6	–	–	0.35 x V_{CC}	–	0.35 x V_{CC}	
			1.65 to 1.95	–	–	0.35 x V_{CC}	–	0.35 x V_{CC}	
			2.3 to < 2.7	–	–	0.7	–	0.7	
			2.7 to 3.6	–	–	0.8	–	0.8	
V_{OH}	High−Level Output Voltage	V_{IN} = V_{IH} or V_{IL}							V
		I_{OH} = − 100 μA	0.9	–	V_{CC} − 0.1	–	–	–	
			1.1 to 1.3	V_{CC} − 0.1	–	–	V_{CC} − 0.1	–	
			1.4 to 1.6	V_{CC} − 0.1	–	–	V_{CC} − 0.1	–	
			1.65 to 1.95	V_{CC} − 0.2	–	–	V_{CC} − 0.2	–	
			2.3 to <2.7	V_{CC} − 0.2	–	–	V_{CC} − 0.2	–	
			2.7 to 3.6	V_{CC} − 0.2	–	–	V_{CC} − 0.2	–	
		I_{OH} = −2 mA	1.1 to 1.3	0.75 x V_{CC}	–	–	0.75 x V_{CC}	–	
		I_{OH} = −4 mA	1.4 to 1.6	0.75 x V_{CC}	–	–	0.75 x V_{CC}	–	
		I_{OH} = −6 mA	1.65 to 1.95	1.25	–	–	1.25	–	
			2.3 to 2.7	2.0	–	–	2.0	–	
		I_{OH} = −12 mA	2.3 to 2.7	1.8	–	–	1.8	–	
			2.7 to 3.6	2.2	–	–	2.2	–	
		I_{OH} = −18 mA	2.3 to 2.7	1.7	–	–	1.7	–	
			2.7 to 3.6	2.4	–	–	2.4	–	
		I_{OH} = −24 mA	2.7 to 3.6	2.2	–	–	2.2	–	

DC ELECTRICAL CHARACTERISTICS (continued)

Symbol	Parameter	Condition	V_{CC} (V)	$T_A = 25°C$			$T_A = -55°C$ to $+125°C$		Unit
				Min	Typ	Max	Min	Max	
V_{OL}	Low−Level Output Voltage	$V_{IN} = V_{IH}$ or V_{IL}							V
		$I_{OL} = 100$ μA	0.9	–	0.1	–	–	–	
			1.1 to 1.3	–	–	0.1	–	0.1	
			1.4 to 1.6	–	–	0.1	–	0.1	
			1.65 to 1.95	–	–	0.2	–	0.2	
			2.3 to < 2.7	–	–	0.2	–	0.2	
			2.7 to 3.6	–	–	0.2	–	0.2	
		$I_{OL} = 2$ mA	1.1 to 1.3	–	–	0.25 x V_{CC}	–	0.25 x V_{CC}	
		$I_{OL} = 4$ mA	1.4 to 1.6	–	–	0.25 x V_{CC}	–	0.25 x V_{CC}	
		$I_{OL} = 6$ mA	1.65 to 1.95	–	–	0.3	–	0.3	
			2.3 to 2.7	–	–	0.3	–	0.3	
		$I_{OL} = 12$ mA	2.3 to 2.7	–	–	0.4	–	0.4	
			2.7 to 3.6	–	–	0.4	–	0.4	
		$I_{OL} = 18$ mA	2.3 to 2.7	–	–	0.6	–	0.6	
			2.7 to 3.6	–	–	0.4	–	0.4	
		$I_{OL} = 24$ mA	2.7 to 3.6	–	–	0.55	–	0.55	
I_{IN}	Input Leakage Current	$V_{IN} = 3.6$ V or GND	0.9 to 3.6	–	–	±0.1	–	±0.9	μA
I_{OFF}	Power Off Leakage Current	$V_{IN} = 3.6$ V or $V_{OUT} = 3.6$ V	0	–	–	1.0	–	5.0	μA
I_{CC}	Quiescent Supply Current	$V_{IN} = V_{CC}$ or GND	0.9 to 3.6	–	–	0.9	–	5.0	μA

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.
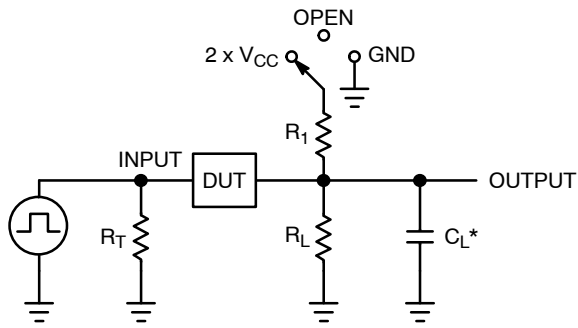
AC ELECTRICAL CHARACTERISTICS

Symbol	Parameter	Condition	V_{CC} (V)	$T_A = 25°C$			$T_A = -55°C$ to $+125°C$		Unit
				Min	Typ	Max	Min	Max	
t_{PLH}, t_{PHL}	Propagation Delay, A to Y (Figures 3 and 4)	$R_L = 1$ MΩ, $C_L = 15$ pF	0.9	–	11.7	–	–	–	ns
		$R_L = 2$ kΩ, $C_L = 15$ pF	1.1 to 1.3	–	5.5	9.0	–	13.9	
			1.4 to 1.6	–	3.9	5.1	–	6.0	
		$R_L = 500$ Ω, $C_L = 30$ pF	1.65 to 1.95	–	2.4	4.2	–	5.2	
			2.3 to 2.7	–	1.8	2.7	–	3.4	
			2.7 to 3.6	–	1.5	2.3	–	2.8	

CAPACITIVE CHARACTERISTICS

Symbol	Parameter	Test Condition	Typical ($T_A = 25°C$)	Unit
C_{IN}	Input Capacitance	$V_{CC} = 0$ V	2.0	pF
C_{OUT}	Output Capacitance	$V_{CC} = 0$ V	4.5	pF
C_{PD}	Power Dissipation Capacitance (Note 5)	10 MHz, $V_{CC} = 0.9$ to 3.6 V, $V_{IN} = 0$ V or V_{CC}	20	pF

5. C_{PD} 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 $I_{CC(OPR)} = C_{PD} \bullet V_{CC} \bullet f_{in} + I_{CC}$. C_{PD} is used to determine the no−load dynamic power consumption: $P_D = C_{PD} \bullet V_{CC}^2 \bullet f_{in} + I_{CC} \bullet V_{CC}$.

Figure 3. Test Circuit

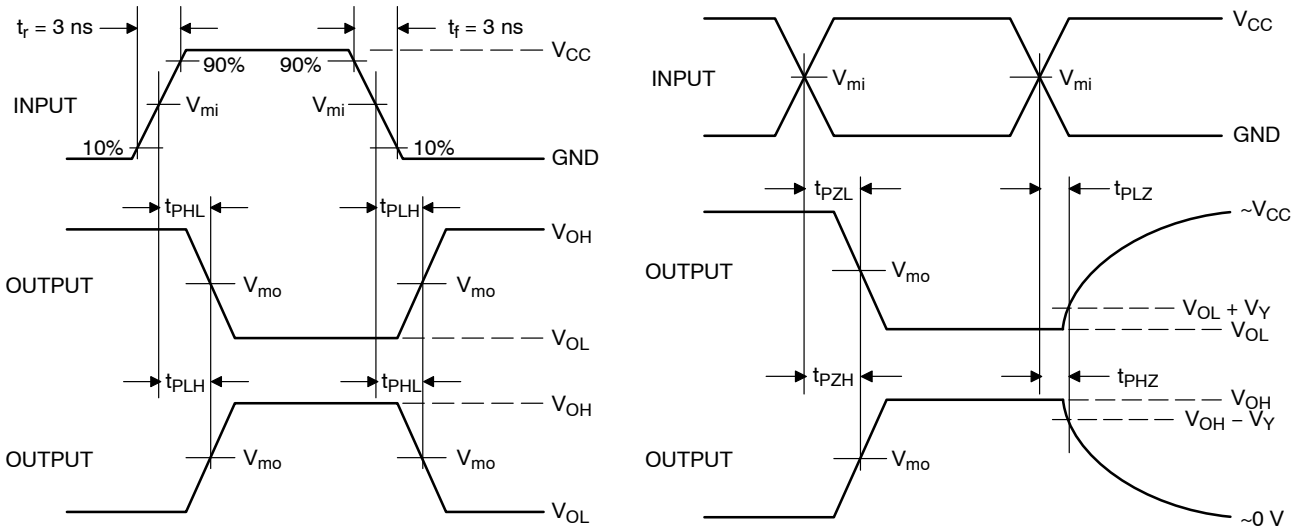| Test	Switch Position
t_{PLH} / t_{PHL}	Open
t_{PLZ} / t_{PZL}	$2 \times V_{CC}$
t_{PHZ} / t_{PZH}	GND

C_L includes probe and jig capacitance
R_T is Z_{OUT} of pulse generator (typically 50 Ω)
f = 1 MHz

V_{CC}, V	V_{mi}, V	V_{mo}, V		V_Y, V
		t_{PLH}, t_{PHL}	t_{PZL}, t_{PLZ}, t_{PZH}, t_{PHZ}	
0.9	V_{CC} / 2	V_{CC} / 2	V_{CC} / 2	0.1
1.1 to 1.3	V_{CC} / 2	V_{CC} / 2	V_{CC} / 2	0.1
1.4 to 1.6	V_{CC} / 2	V_{CC} / 2	V_{CC} / 2	0.1
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	1.5	1.5	1.5	0.3

Figure 4. Switching Waveforms

NL17SV04

Device	Package	Marking	Pin 1 Orientation (See below)	Shipping[†]
NL17SV04DFT2G (Contact ON Semiconductor)	SC−88A	TBD	Q4	3000 / Tape & Reel
NL17SV04XV5T2G	SOT−553	UL	Q4	4000 / Tape & Reel
NL17SV04P5T5G (Contact ON Semiconductor)	SOT−953	TBD	Q2	8000 / Tape & Reel
NL17SV04DBVT1G (Contact ON Semiconductor)	SC−74A	TBD	Q4	3000 / Tape & Reel
NL17SV04MU1TCG (Contact ON Semiconductor)	UDFN6, 1.45 x 1.0, 0.5P	TBD	Q4	3000 / Tape & Reel
NL17SV04MU3TCG (Contact ON Semiconductor)	UDFN6, 1.0 x 1.0, 0.35P	TBD	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.
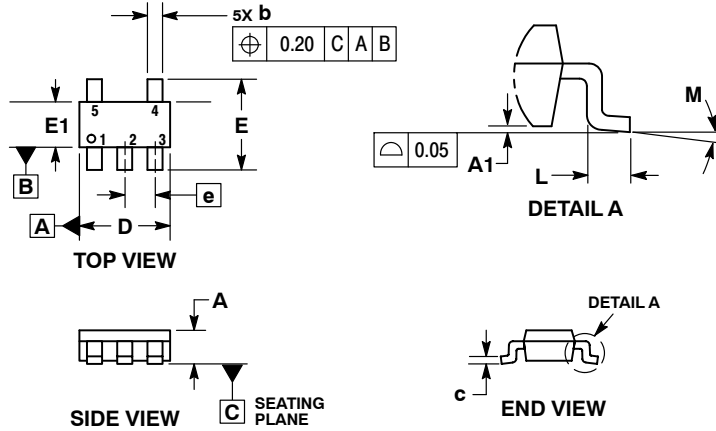
Pin 1 Orientation in Tape and Reel
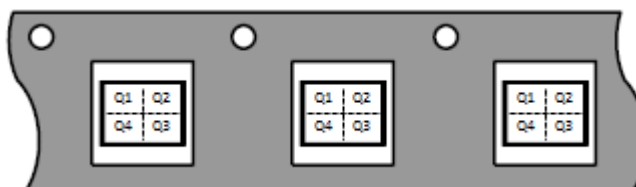
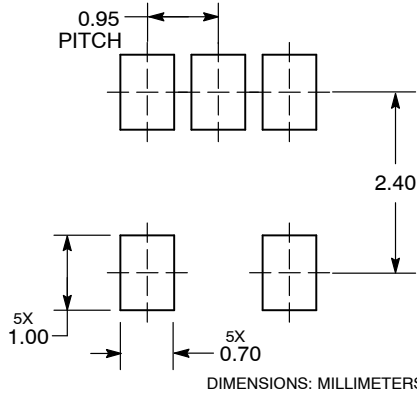# NL17SV04

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 °

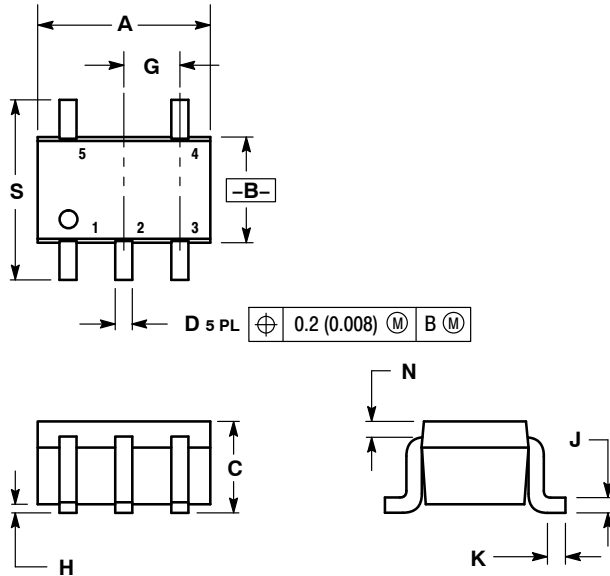**RECOMMENDED SOLDERING FOOTPRINT***

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.

NL17SV04

PACKAGE DIMENSIONS
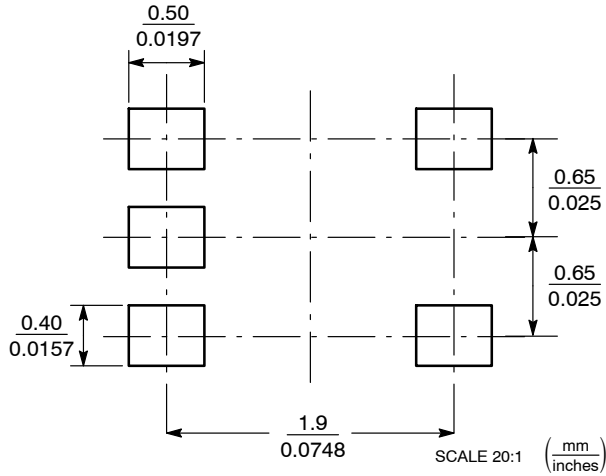
SC−88A (SC−70−5/SOT−353)
CASE 419A−02
ISSUE L

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		0.65 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

D 5 PL ⊕ 0.2 (0.008) Ⓜ B Ⓜ

SOLDER FOOTPRINT

0.50 / 0.0197

0.65 / 0.025

0.65 / 0.025

0.40 / 0.0157

1.9 / 0.0748

SCALE 20:1 (mm / inches)

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
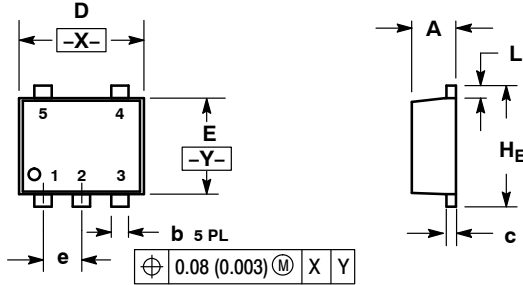
STYLE 8:
PIN 1. CATHODE
2. COLLECTOR
3. N/C
4. BASE
5. EMITTER

STYLE 9:
PIN 1. ANODE
2. CATHODE
3. ANODE
4. ANODE
5. ANODE

NL17SV04

## 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$_E$	1.55	1.60	1.65	0.061	0.063	0.065

RECOMMENDED SOLDERING FOOTPRINT*
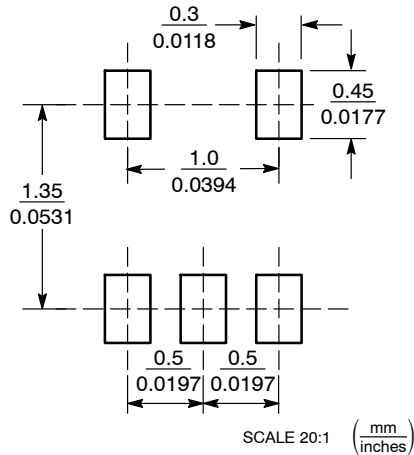
SCALE 20:1 $\left(\frac{mm}{inches}\right)$

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

STYLE 1:
PIN 1. BASE
2. EMITTER
3. BASE
4. COLLECTOR
5. COLLECTOR

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

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. ANODE
2. EMITTER
3. BASE
4. COLLECTOR
5. CATHODE

STYLE 6:
PIN 1. EMITTER 2
2. BASE 2
3. EMITTER 1
4. COLLECTOR 1
5. COLLECTOR 2/BASE 1

STYLE 7:
PIN 1. BASE
2. EMITTER
3. BASE
4. COLLECTOR
5. COLLECTOR
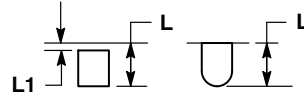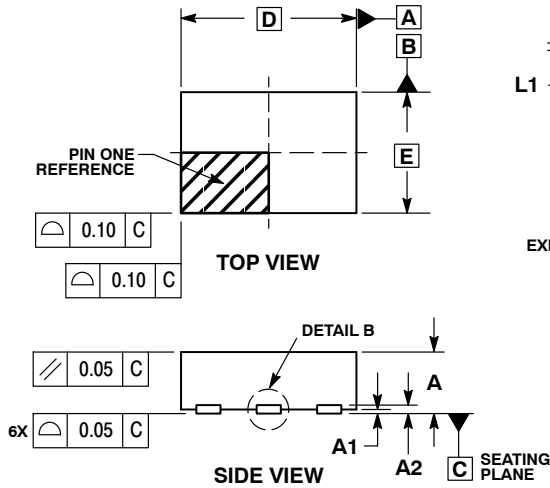
STYLE 8:
PIN 1. CATHODE
2. COLLECTOR
3. N/C
4. BASE
5. EMITTER

STYLE 9:
PIN 1. ANODE
2. CATHODE
3. ANODE
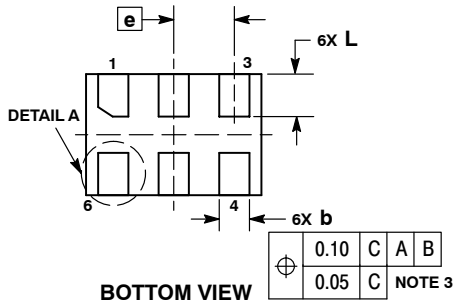4. ANODE
5. ANODE

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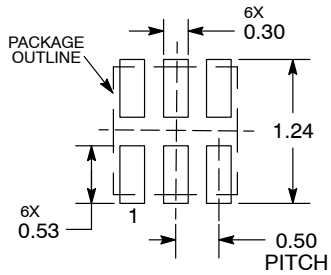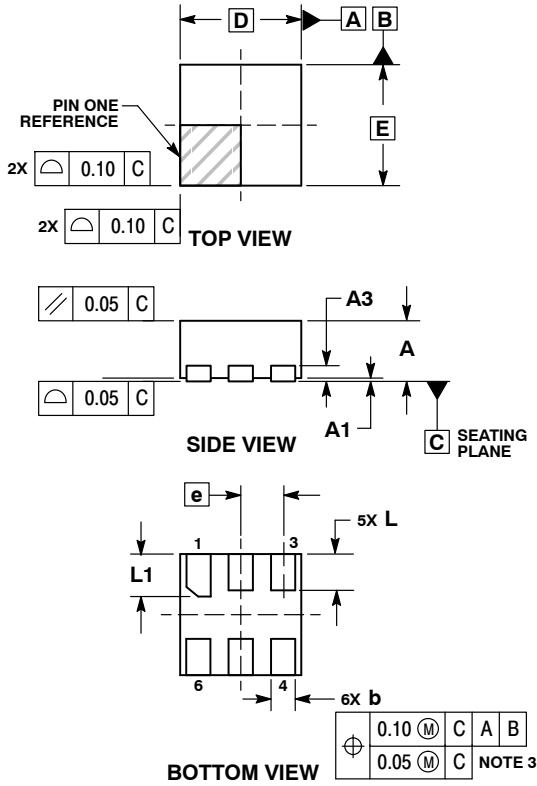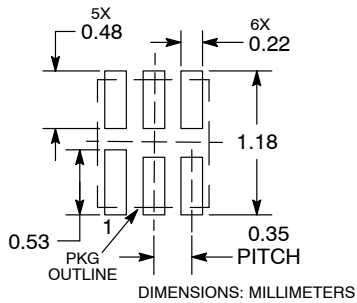## PACKAGE DIMENSIONS

UDFN6, 1.45x1.0, 0.5P
CASE 517AQ
ISSUE O
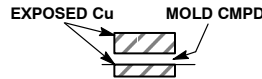
NOTES:
1. DIMENSIONING AND TOLERANCING PER ASME Y14.5M, 1994.
2. CONTROLLING DIMENSION: MILLIMETERS.
3. DIMENSION b APPLIES TO PLATED TERMINAL AND IS MEASURED BETWEEN 0.15 AND 0.30 mm FROM THE TERMINAL TIP.

TOP VIEW

PIN ONE REFERENCE

| ⌴ | 0.10 | C |

| ⌴ | 0.10 | C |

DETAIL A
OPTIONAL CONSTRUCTIONS

SIDE VIEW

| ⌗ | 0.05 | C |

6X | ⌴ | 0.05 | C |

DETAIL B

SEATING PLANE

EXPOSED Cu   MOLD CMPD

DETAIL B
OPTIONAL CONSTRUCTIONS

	MILLIMETERS	
DIM	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

BOTTOM VIEW

DETAIL A

6X L

6X b

⊕	0.10	C	A	B
	0.05	C	NOTE 3	

MOUNTING FOOTPRINT

PACKAGE OUTLINE

6X 0.30

1.24

6X 0.53

0.50 PITCH

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.
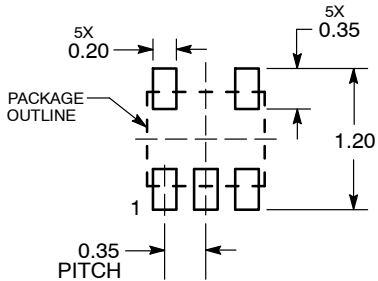
PACKAGE DIMENSIONS

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

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 0.20 MM FROM TERMINAL TIP.
4. PACKAGE DIMENSIONS EXCLUSIVE OF BURRS AND MOLD FLASH.

DIM	MILLIMETERS	
	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	1.00 BSC	
e	0.35 BSC	
L	0.25	0.35
L1	0.30	0.40

PIN ONE REFERENCE

2X ⌒ 0.10 C

2X ⌒ 0.10 C

TOP VIEW

0.05 C

0.05 C

SIDE VIEW

A3

A

A1

C SEATING PLANE

e

5X L

L1

1   3

6   4

6X b

⊕ 0.10 Ⓜ C A B
0.05 Ⓜ C   NOTE 3

BOTTOM VIEW

RECOMMENDED SOLDERING FOOTPRINT*

5X
0.48

6X
0.22

1.18

0.53

1

PKG OUTLINE

0.35
PITCH

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.

NL17SV04

PACKAGE DIMENSIONS

SOT−953
CASE 527AE
ISSUE E
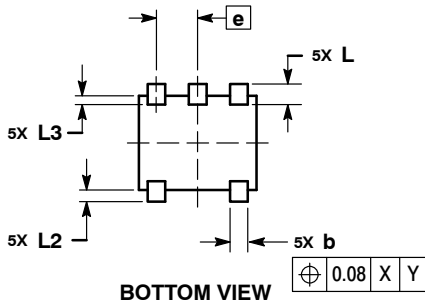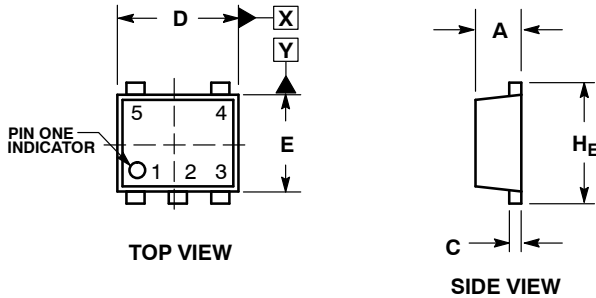
TOP VIEW

PIN ONE INDICATOR

5 4

1 2 3

SIDE VIEW

BOTTOM VIEW

5X L

5X L3

5X L2

5X b

⊕ | 0.08 | X | Y

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_E	0.95	1.00	1.05
L	0.175 REF		
L2	0.05	0.10	0.15
L3	---	---	0.15

SOLDERING FOOTPRINT*

5X
0.20

5X
0.35

PACKAGE OUTLINE

1.20

1

0.35
PITCH

DIMENSIONS: MILLIMETERS

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