# 74LVC3G17

## Triple non-inverting Schmitt trigger with 5 V tolerant input

Rev. 05 — 13 March 2008 Product data sheet

## 1. General description

The 74LVC3G17 provides three non-inverting buffers with Schmitt trigger action. It is capable of transforming slowly changing input signals into sharply defined, jitter-free output signals.

Inputs can be driven from either 3.3 V or 5 V devices. This feature allows the use of the 74LVC3G17 as a translator in a mixed 3.3 V and 5 V environment.

This device is fully specified for partial power-down applications using $I_{OFF}$. The $I_{OFF}$ circuitry disables the output, preventing a damaging backflow current through the device when it is powered down.

## 2. Features

- Wide supply voltage range from 1.65 V to 5.5 V
- 5 V tolerant input/output for interfacing with 5 V logic
- High noise immunity
- ESD protection:
  - HBM JESD22-A114E exceeds 2000 V
  - MM JESD22-A115-A exceeds 200 V
- ±24 mA output drive ($V_{CC}$ = 3.0 V)
- CMOS low-power consumption
- Latch-up performance exceeds 250 mA
- Direct interface with TTL levels
- Multiple package options
- Specified from –40 °C to +85 °C and –40 °C to +125 °C

## 3. Applications

- Wave and pulse shapers for highly noisy environments

## 4. Ordering information

**Table 1. Ordering information**

| Type number | Package | | | |
|---|---|---|---|---|
| | Temperature range | Name | Description | Version |
| 74LVC3G17DP | –40 °C to +125 °C | TSSOP8 | plastic thin shrink small outline package; 8 leads; body width 3 mm; lead length 0.5 mm | SOT505-2 |
| 74LVC3G17DC | –40 °C to +125 °C | VSSOP8 | plastic very thin shrink small outline package; 8 leads; body width 2.3 mm | SOT765-1 |
| 74LVC3G17GT | –40 °C to +125 °C | XSON8 | plastic extremely thin small outline package; no leads; 8 terminals; body 1 × 1.95 × 0.5 mm | SOT833-1 |
| 74LVC3G17GM | –40 °C to +125 °C | XQFN8U | plastic extremely thin quad flat package; no leads; 8 terminals; UTLP based; body 1.6 × 1.6 × 0.5 mm | SOT902-1 |

## 5. Marking

**Table 2. Marking codes**

| Type number | Marking code |
|---|---|
| 74LVC3G17DP | V17 |
| 74LVC3G17DC | V17 |
| 74LVC3G17GT | V17 |
| 74LVC3G17GM | V17 |

## 6. Functional diagram

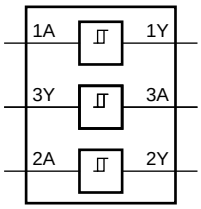



**Fig 1. Logic symbol**

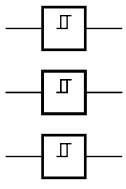



**Fig 2. IEC logic symbol**

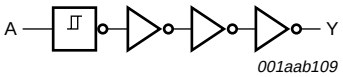



**Fig 3. Logic diagram (one gate)**

# 7. Pinning information

## 7.1 Pinning

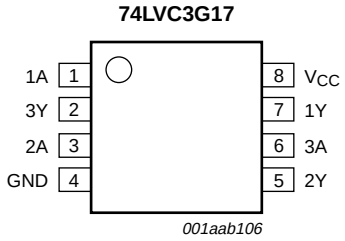
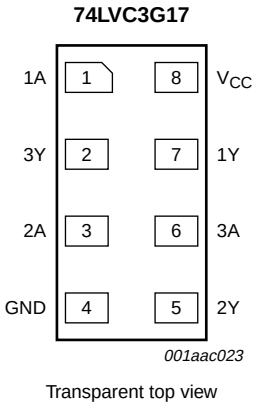
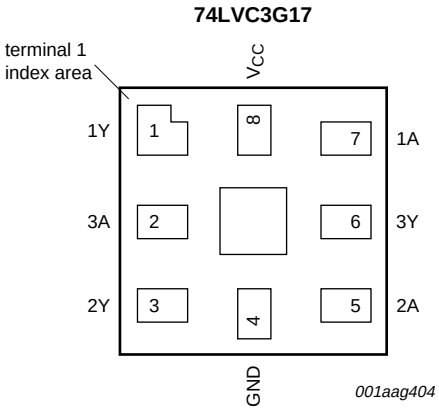



**Fig 4. Pin configuration SOT505-2 (TSSOP8) and SOT765-1 (VSSOP8)**




Transparent top view

**Fig 5. Pin configuration SOT833-1 (XSON8)**




Transparent top view

**Fig 6. Pin configuration SOT902-1 (XQFN8U)**

### 7.2 Pin description

**Table 3. Pin description**

| Symbol | Pin | | Description |
|---|---|---|---|
| | SOT505-2, SOT765-1 and SOT833-1 | SOT902-1 | |
| 1A | 1 | 7 | data input 1 |
| 3Y | 2 | 6 | data output 3 |
| 2A | 3 | 5 | data input 2 |
| GND | 4 | 4 | ground (0 V) |
| 2Y | 5 | 3 | data output 2 |
| 3A | 6 | 2 | data input 3 |
| 1Y | 7 | 1 | data output 1 |
| $V_{CC}$ | 8 | 8 | supply voltage |

## 8. Functional description

**Table 4. Function table[1]**

| Input | Output |
|---|---|
| nA | nY |
| L | L |
| H | H |

[1] H = HIGH voltage level;
L = LOW voltage level.

## 9. Limiting values

**Table 5. Limiting values**

*In accordance with the Absolute Maximum Rating System (IEC 60134). Voltages are referenced to GND (ground = 0 V).*

| Symbol | Parameter | Conditions | | Min | Max | Unit |
|---|---|---|---|---|---|---|
| $V_{CC}$ | supply voltage | | | –0.5 | +6.5 | V |
| $I_{IK}$ | input clamping current | $V_I < 0$ V | | –50 | - | mA |
| $V_I$ | input voltage | | [1] | –0.5 | +6.5 | V |
| $I_{OK}$ | output clamping current | $V_O > V_{CC}$ or $V_O < 0$ V | | - | ±50 | mA |
| $V_O$ | output voltage | Active mode | [1] | –0.5 | $V_{CC}$ + 0.5 | V |
| | | Power-down mode | [1][2] | –0.5 | +6.5 | V |
| $I_O$ | output current | $V_O$ = 0 V to $V_{CC}$ | | - | ±50 | mA |
| $I_{CC}$ | supply current | | | - | 100 | mA |
| $I_{GND}$ | ground current | | | –100 | - | mA |
| $T_{stg}$ | storage temperature | | | –65 | +150 | °C |
| $P_{tot}$ | total power dissipation | $T_{amb}$ = –40 °C to +125 °C | [3] | - | 250 | mW |

[1] The minimum input and output voltage ratings may be exceeded if the input and output current ratings are observed.

[2] When $V_{CC}$ = 0 V (Power-down mode), the output voltage can be 5.5 V in normal operation.

[3] For TSSOP8 and VSSOP8 packages: above 110 °C the value of $P_{tot}$ derates linearly with 8.0 mW/K.
For XSON8 and XQFN8U packages: above 45 °C the value of $P_{tot}$ derates linearly with 2.4 mW/K.

## 10. Recommended operating conditions

**Table 6. Operating conditions**

| Symbol | Parameter | Conditions | Min | Max | Unit |
|---|---|---|---|---|---|
| $V_{CC}$ | supply voltage | | 1.65 | 5.5 | V |
| $V_I$ | input voltage | | 0 | 5.5 | V |
| $V_O$ | output voltage | | 0 | $V_{CC}$ | V |
| $T_{amb}$ | ambient temperature | | –40 | +125 | °C |

## 11. Static characteristics

**Table 7. Static characteristics**

*At recommended operating conditions; voltages are referenced to GND (ground = 0 V).*

| Symbol | Parameter | Conditions | | Min | Typ[1] | Max | Unit |
|---|---|---|---|---|---|---|---|
| **$T_{amb}$ = –40 °C to +85 °C** | | | | | | | |
| $V_{OL}$ | LOW-level output voltage | $V_I = V_{IH}$ or $V_{IL}$ | | | | | |
| | | $I_O$ = 100 µA; $V_{CC}$ = 1.65 V to 5.5 V | | - | - | 0.1 | V |
| | | $I_O$ = 4 mA; $V_{CC}$ = 1.65 V | | - | - | 0.45 | V |
| | | $I_O$ = 8 mA; $V_{CC}$ = 2.3 V | | - | - | 0.3 | V |
| | | $I_O$ = 12 mA; $V_{CC}$ = 2.7 V | | - | - | 0.4 | V |
| | | $I_O$ = 24 mA; $V_{CC}$ = 3.0 V | | - | - | 0.55 | V |
| | | $I_O$ = 32 mA; $V_{CC}$ = 4.5 V | | - | - | 0.55 | V |
| $V_{OH}$ | HIGH-level output voltage | $V_I = V_{IH}$ or $V_{IL}$ | | | | | |
| | | $I_O$ = –100 µA; $V_{CC}$ = 1.65 V to 5.5 V | | $V_{CC}$ – 0.1 | - | - | V |
| | | $I_O$ = –4 mA; $V_{CC}$ = 1.65 V | | 1.2 | - | - | V |
| | | $I_O$ = –8 mA; $V_{CC}$ = 2.3 V | | 1.9 | - | - | V |
| | | $I_O$ = –12 mA; $V_{CC}$ = 2.7 V | | 2.2 | - | - | V |
| | | $I_O$ = –24 mA; $V_{CC}$ = 3.0 V | | 2.3 | - | - | V |
| | | $I_O$ = –32 mA; $V_{CC}$ = 4.5 V | | 3.8 | - | - | V |
| $I_I$ | input leakage current | $V_I$ = 5.5 V or GND; $V_{CC}$ = 0 V to 5.5 V | [2] | - | ±0.1 | ±5 | µA |
| $I_{OFF}$ | power-off leakage current | $V_I$ or $V_O$ = 5.5 V; $V_{CC}$ = 0 V | | - | ±0.1 | ±10 | µA |
| $I_{CC}$ | supply current | $V_I$ = 5.5 V or GND; $I_O$ = 0 A; $V_{CC}$ = 1.65 V to 5.5 V | | - | 0.1 | 10 | µA |
| $\Delta I_{CC}$ | additional supply current | $V_I = V_{CC}$ – 0.6 V; $I_O$ = 0 A; $V_{CC}$ = 2.3 V to 5.5 V | [2] | - | 5 | 500 | µA |
| $C_I$ | input capacitance | | | - | 3.5 | - | pF |
| **$T_{amb}$ = –40 °C to +125 °C** | | | | | | | |
| $V_{OL}$ | LOW-level output voltage | $V_I = V_{IH}$ or $V_{IL}$ | | | | | |
| | | $I_O$ = 100 µA; $V_{CC}$ = 1.65 V to 5.5 V | | - | - | 0.1 | V |
| | | $I_O$ = 4 mA; $V_{CC}$ = 1.65 V | | - | - | 0.70 | V |
| | | $I_O$ = 8 mA; $V_{CC}$ = 2.3 V | | - | - | 0.45 | V |
| | | $I_O$ = 12 mA; $V_{CC}$ = 2.7 V | | - | - | 0.60 | V |
| | | $I_O$ = 24 mA; $V_{CC}$ = 3.0 V | | - | - | 0.80 | V |
| | | $I_O$ = 32 mA; $V_{CC}$ = 4.5 V | | - | - | 0.80 | V |

**Table 7. Static characteristics** *…continued*

*At recommended operating conditions; voltages are referenced to GND (ground = 0 V).*

| Symbol | Parameter | Conditions | Min | Typ[1] | Max | Unit |
|---|---|---|---|---|---|---|
| $V_{OH}$ | HIGH-level output voltage | $V_I = V_{IH}$ or $V_{IL}$ | | | | |
| | | $I_O$ = –100 µA; $V_{CC}$ = 1.65 V to 5.5 V | $V_{CC}$ – 0.1 | - | - | V |
| | | $I_O$ = –4 mA; $V_{CC}$ = 1.65 V | 0.95 | - | - | V |
| | | $I_O$ = –8 mA; $V_{CC}$ = 2.3 V | 1.7 | - | - | V |
| | | $I_O$ = –12 mA; $V_{CC}$ = 2.7 V | 1.9 | - | - | V |
| | | $I_O$ = –24 mA; $V_{CC}$ = 3.0 V | 2.0 | - | - | V |
| | | $I_O$ = –32 mA; $V_{CC}$ = 4.5 V | 3.4 | - | - | V |
| $I_I$ | input leakage current | $V_I$ = 5.5 V or GND; $V_{CC}$ = 0 V to 5.5 V | - | - | ±20 | µA |
| $I_{OFF}$ | power-off leakage current | $V_I$ or $V_O$ = 5.5 V; $V_{CC}$ = 0 V | - | - | ±20 | µA |
| $I_{CC}$ | supply current | $V_I$ = 5.5 V or GND; $I_O$ = 0 A; $V_{CC}$ = 1.65 V to 5.5 V | - | - | 40 | µA |
| $\Delta I_{CC}$ | additional supply current | $V_I = V_{CC}$ – 0.6 V; $I_O$ = 0 A; $V_{CC}$ = 2.3 V to 5.5 V | - | - | 5 | mA |

[1] All typical values are measured at $T_{amb}$ = 25 °C.

[2] These typical values are measured at $V_{CC}$ = 3.3 V.

## 12. Dynamic characteristics

**Table 8. Dynamic characteristics**

*Voltages are referenced to GND (ground = 0 V); for test circuit see Figure 8.*

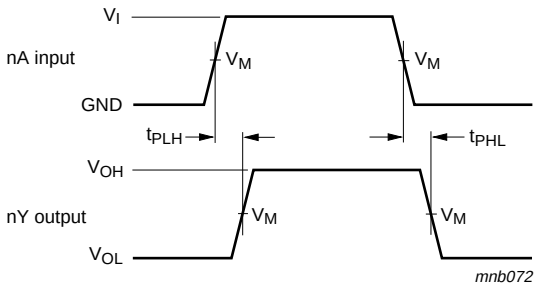
| Symbol | Parameter | Conditions | –40 °C to +85 °C | | | –40 °C to +125 °C | | Unit |
|---|---|---|---|---|---|---|---|---|
| | | | Min | Typ[1] | Max | Min | Max | |
| $t_{pd}$ | propagation delay | nA to nY; see Figure 7 [2] | | | | | | |
| | | $V_{CC}$ = 1.65 V to 1.95 V | 1.5 | 5.6 | 10.5 | 1.5 | 13.1 | ns |
| | | $V_{CC}$ = 2.3 V to 2.7 V | 1.0 | 3.7 | 6.5 | 1.0 | 8.5 | ns |
| | | $V_{CC}$ = 2.7 V | 1.0 | 3.8 | 6.5 | 1.0 | 8.5 | ns |
| | | $V_{CC}$ = 3.0 V to 3.6 V | 1.0 | 3.6 | 5.7 | 1.0 | 7.1 | ns |
| | | $V_{CC}$ = 4.5 V to 5.5 V | 1.0 | 2.7 | 4.3 | 1.0 | 5.4 | ns |
| $C_{PD}$ | power dissipation capacitance | per buffer; $V_{CC}$ = 3.3 V; $V_I$ = GND to $V_{CC}$ [3] | - | 16.3 | - | - | - | pF |

[1] Typical values are measured at $T_{amb}$ = 25 °C and $V_{CC}$ = 1.8 V, 2.5 V, 2.7 V, 3.3 V and 5.0 V respectively.

[2] $t_{pd}$ is the same as $t_{PLH}$ and $t_{PHL}$.

[3] $C_{PD}$ is used to determine the dynamic power dissipation ($P_D$ in µW).
$P_D = C_{PD} \times V_{CC}^2 \times f_i \times N + \Sigma(C_L \times V_{CC}^2 \times f_o)$ where:
$f_i$ = input frequency in MHz;
$f_o$ = output frequency in MHz;
$C_L$ = output load capacitance in pF;
$V_{CC}$ = supply voltage in V;
N = number of inputs switching;
$\Sigma(C_L \times V_{CC}^2 \times f_o)$ = sum of outputs.

## 13. Waveforms



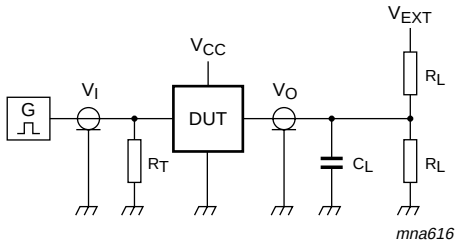

Measurement points are given in Table 9.

$V_{OL}$ and $V_{OH}$ are typical output voltage drops that occur with the output load.

**Fig 7. The input (nA) to output (nY) propagation delays and the output transition times**

**Table 9. Measurement points**

| Supply voltage | Input | Output |
|---|---|---|
| $V_{CC}$ | $V_M$ | $V_M$ |
| 1.65 V to 1.95 V | $0.5 \times V_{CC}$ | $0.5 \times V_{CC}$ |
| 2.3 V to 2.7 V | $0.5 \times V_{CC}$ | $0.5 \times V_{CC}$ |
| 2.7 V | 1.5 V | 1.5 V |
| 3.0 V to 3.6 V | 1.5 V | 1.5 V |
| 4.5 V to 5.5 V | $0.5 \times V_{CC}$ | $0.5 \times V_{CC}$ |




Test data is given in Table 10.

Definitions for test circuit:

$R_L$ = Load resistance.

$C_L$ = Load capacitance including jig and probe capacitance.

$R_T$ = Termination resistance should be equal to output impedance $Z_o$ of the pulse generator.

$V_{EXT}$ = External voltage for measuring switching times.

**Fig 8. Load circuitry for switching times**

**Table 10. Test data**

| Supply voltage | Input | | Load | | $V_{EXT}$ | | |
|---|---|---|---|---|---|---|---|
| $V_{CC}$ | $V_I$ | $t_r$, $t_f$ | $C_L$ | $R_L$ | $t_{PLH}$, $t_{PHL}$ | $t_{PZH}$, $t_{PHZ}$ | $t_{PZL}$, $t_{PLZ}$ |
| 1.65 V to 1.95 V | $V_{CC}$ | ≤ 2.0 ns | 30 pF | 1 kΩ | open | GND | $2 \times V_{CC}$ |
| 2.3 V to 2.7 V | $V_{CC}$ | ≤ 2.0 ns | 30 pF | 500 Ω | open | GND | $2 \times V_{CC}$ |
| 2.7 V | 2.7 V | ≤ 2.5 ns | 50 pF | 500 Ω | open | GND | 6 V |
| 3.0 V to 3.6 V | 2.7 V | ≤ 2.5 ns | 50 pF | 500 Ω | open | GND | 6 V |
| 4.5 V to 5.5 V | $V_{CC}$ | ≤ 2.5 ns | 50 pF | 500 Ω | open | GND | $2 \times V_{CC}$ |

## 14. Transfer characteristics

**Table 11. Transfer characteristics**

*At recommended operating conditions. Voltages are referenced to GND (ground = 0 V).*

| Symbol | Parameter | Conditions | –40 °C to +85 °C | | | –40 °C to +125 °C | | Unit |
|---|---|---|---|---|---|---|---|---|
| | | | Min | Typ[1] | Max | Min | Max | |
| $V_{T+}$ | positive-going threshold voltage | see Figure 9 and Figure 10 | | | | | | |
| | | $V_{CC}$ = 1.8 V | 0.70 | 1.10 | 1.50 | 0.70 | 1.70 | V |
| | | $V_{CC}$ = 2.3 V | 1.00 | 1.40 | 1.80 | 1.00 | 2.00 | V |
| | | $V_{CC}$ = 3.0 V | 1.30 | 1.76 | 2.20 | 1.30 | 2.40 | V |
| | | $V_{CC}$ = 4.5 V | 1.90 | 2.47 | 3.10 | 1.90 | 3.30 | V |
| | | $V_{CC}$ = 5.5 V | 2.20 | 2.91 | 3.60 | 2.20 | 3.80 | V |
| $V_{T-}$ | negative-going threshold voltage | see Figure 9 and Figure 10 | | | | | | |
| | | $V_{CC}$ = 1.8 V | 0.25 | 0.61 | 0.90 | 0.25 | 1.10 | V |
| | | $V_{CC}$ = 2.3 V | 0.40 | 0.80 | 1.15 | 0.40 | 1.35 | V |
| | | $V_{CC}$ = 3.0 V | 0.60 | 1.04 | 1.50 | 0.60 | 1.70 | V |
| | | $V_{CC}$ = 4.5 V | 1.00 | 1.55 | 2.00 | 1.00 | 2.20 | V |
| | | $V_{CC}$ = 5.5 V | 1.20 | 1.86 | 2.30 | 1.20 | 2.50 | V |
| $V_H$ | hysteresis voltage | ($V_{T+} - V_{T-}$); see Figure 9, Figure 10 and Figure 11 | | | | | | |
| | | $V_{CC}$ = 1.8 V | 0.15 | 0.49 | 1.00 | 0.15 | 1.20 | V |
| | | $V_{CC}$ = 2.3 V | 0.25 | 0.60 | 1.10 | 0.25 | 1.30 | V |
| | | $V_{CC}$ = 3.0 V | 0.40 | 0.73 | 1.20 | 0.40 | 1.40 | V |
| | | $V_{CC}$ = 4.5 V | 0.60 | 0.92 | 1.50 | 0.60 | 1.70 | V |
| | | $V_{CC}$ = 5.5 V | 0.70 | 1.02 | 1.70 | 0.70 | 1.90 | V |

[1] All typical values are measured at $T_{amb}$ = 25 °C.

## 15. Waveforms transfer characteristics

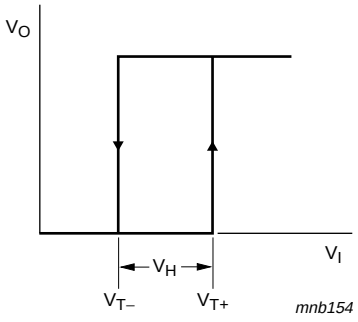
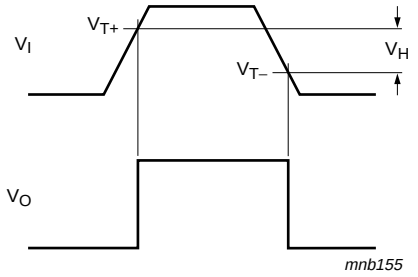
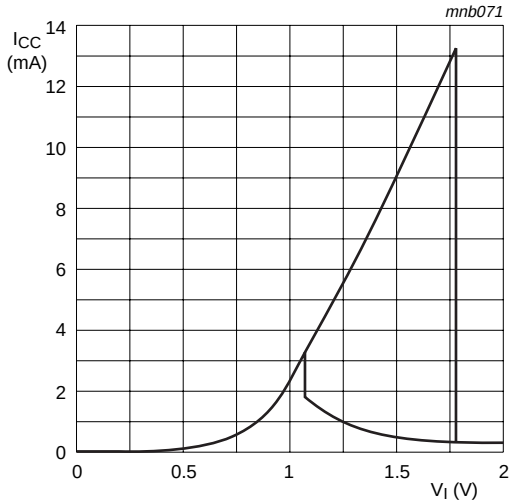



**Fig 9. Transfer characteristic**



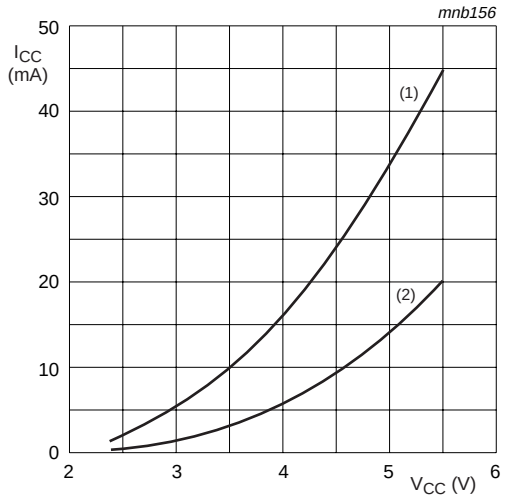

$V_{T+}$ and $V_{T-}$ limits at 70 % and 20 %.

**Fig 10. Definition of $V_{T+}$, $V_{T-}$ and $V_H$**




$V_{CC}$ = 3.0 V.

**Fig 11. Typical transfer characteristic**




(1) Positive-going edge.

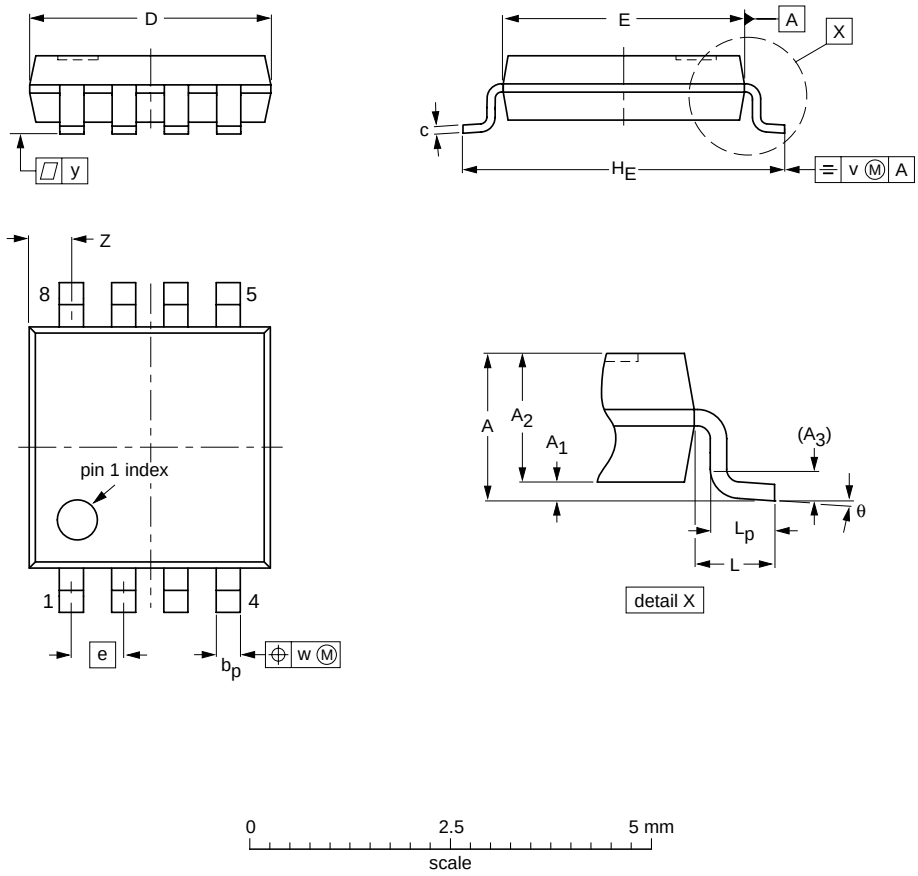
(2) Negative-going edge.

Linear change of $V_I$ between 0.8 V to 2.0 V. All values given are typical unless otherwise specified.

**Fig 12. Average $I_{CC}$ as a function of $V_{CC}$**

## 16. Package outline

**TSSOP8: plastic thin shrink small outline package; 8 leads; body width 3 mm; lead length 0.5 mm SOT505-2**




**DIMENSIONS (mm are the original dimensions)**

| UNIT | A max. | $A_1$ | $A_2$ | $A_3$ | $b_p$ | c | $D^{(1)}$ | $E^{(1)}$ | e | $H_E$ | L | $L_p$ | v | w | y | $Z^{(1)}$ | θ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| mm | 1.1 | 0.15<br>0.00 | 0.95<br>0.75 | 0.25 | 0.38<br>0.22 | 0.18<br>0.08 | 3.1<br>2.9 | 3.1<br>2.9 | 0.65 | 4.1<br>3.9 | 0.5 | 0.47<br>0.33 | 0.2 | 0.13 | 0.1 | 0.70<br>0.35 | 8°<br>0° |

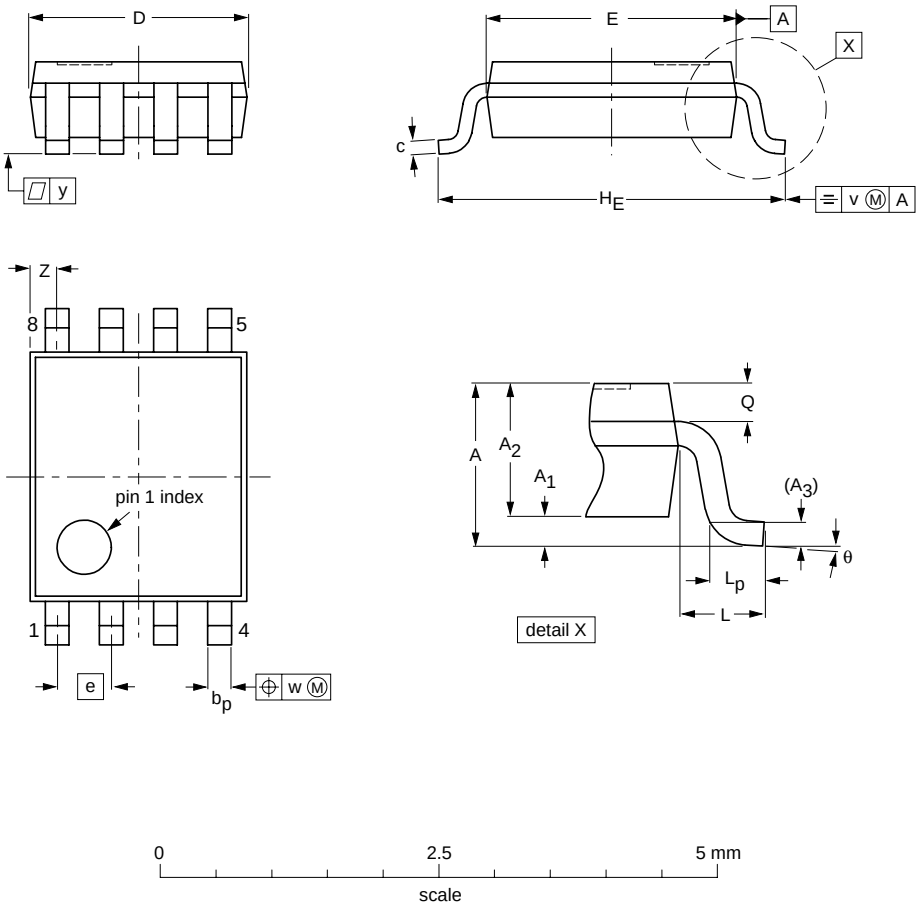
**Note**

1. Plastic or metal protrusions of 0.15 mm maximum per side are not included.

| OUTLINE VERSION | REFERENCES | | | | EUROPEAN PROJECTION | ISSUE DATE |
|---|---|---|---|---|---|---|
| | IEC | JEDEC | JEITA | | | |
| SOT505-2 | | - - - | | | | 02-01-16 |

**Fig 13. Package outline SOT505-2 (TSSOP8)**

**VSSOP8: plastic very thin shrink small outline package; 8 leads; body width 2.3 mm** **SOT765-1**




**DIMENSIONS (mm are the original dimensions)**

| UNIT | A max. | $A_1$ | $A_2$ | $A_3$ | $b_p$ | c | $D^{(1)}$ | $E^{(2)}$ | e | $H_E$ | L | $L_p$ | Q | v | w | y | $Z^{(1)}$ | θ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| mm | 1 | 0.15<br>0.00 | 0.85<br>0.60 | 0.12 | 0.27<br>0.17 | 0.23<br>0.08 | 2.1<br>1.9 | 2.4<br>2.2 | 0.5 | 3.2<br>3.0 | 0.4 | 0.40<br>0.15 | 0.21<br>0.19 | 0.2 | 0.13 | 0.1 | 0.4<br>0.1 | 8°<br>0° |

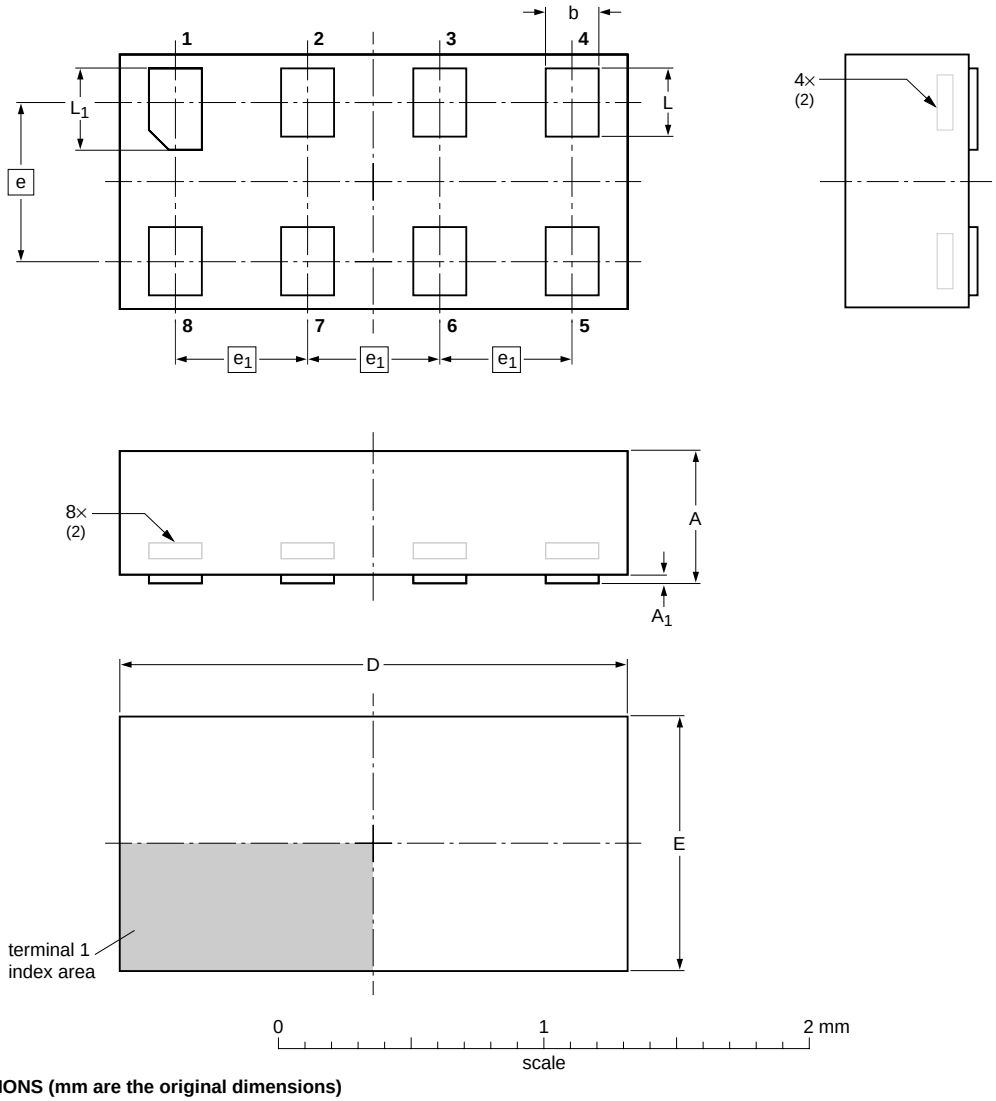
**Notes**

1. Plastic or metal protrusions of 0.15 mm maximum per side are not included.
2. Plastic or metal protrusions of 0.25 mm maximum per side are not included.

| OUTLINE VERSION | REFERENCES | | | | EUROPEAN PROJECTION | ISSUE DATE |
|---|---|---|---|---|---|---|
| | IEC | JEDEC | JEITA | | | |
| SOT765-1 | | MO-187 | | | | 02-06-07 |

**Fig 14. Package outline SOT765-1 (VSSOP8)**

**XSON8: plastic extremely thin small outline package; no leads; 8 terminals; body 1 x 1.95 x 0.5 mm** **SOT833-1**




**DIMENSIONS (mm are the original dimensions)**

| UNIT | A(1) max | A1 max | b | D | E | e | e1 | L | L1 |
|---|---|---|---|---|---|---|---|---|---|
| mm | 0.5 | 0.04 | 0.25<br>0.17 | 2.0<br>1.9 | 1.05<br>0.95 | 0.6 | 0.5 | 0.35<br>0.27 | 0.40<br>0.32 |

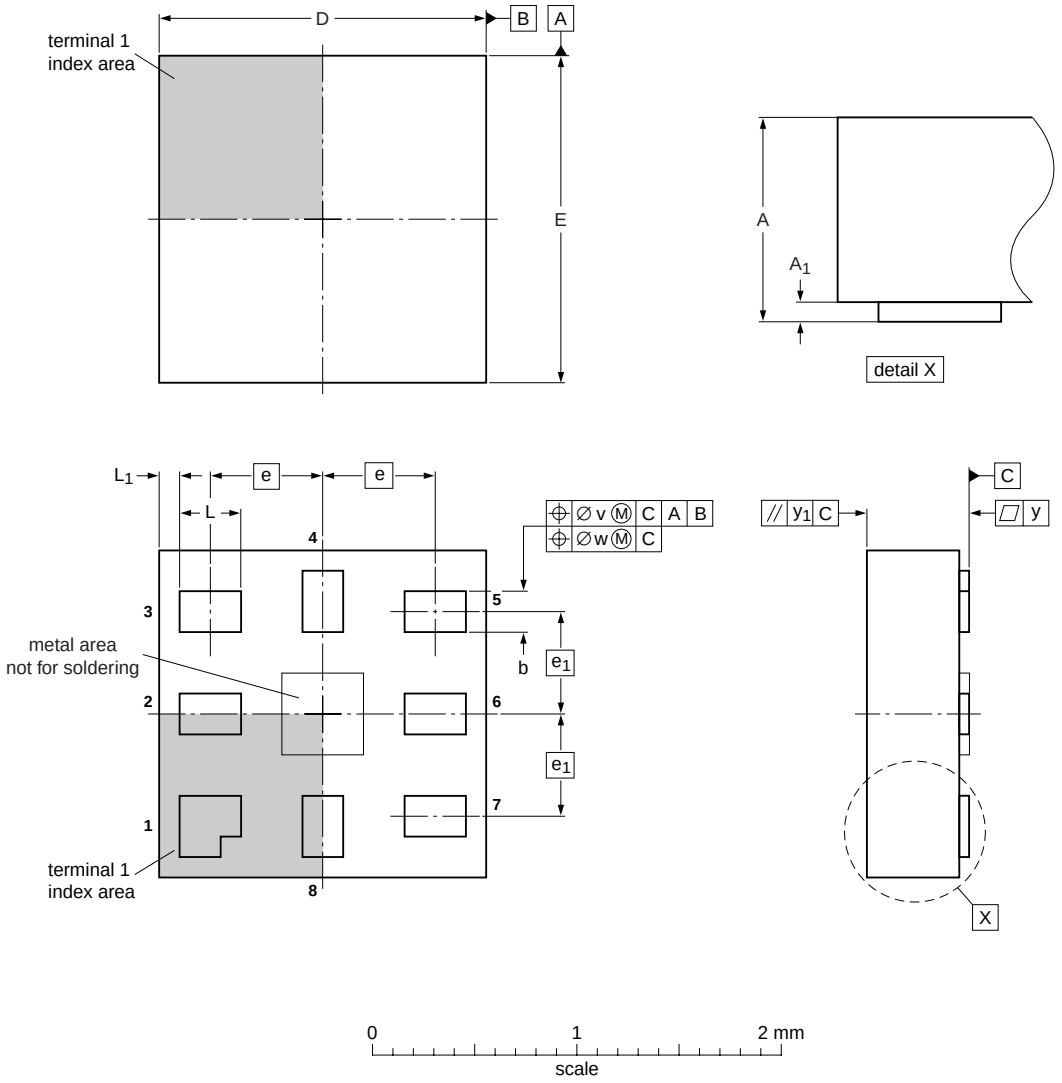
**Notes**

1. Including plating thickness.
2. Can be visible in some manufacturing processes.

| OUTLINE VERSION | REFERENCES | | | | EUROPEAN PROJECTION | ISSUE DATE |
|---|---|---|---|---|---|---|
| | IEC | JEDEC | JEITA | | | |
| SOT833-1 | - - - | MO-252 | - - - | | | ~~07-11-14~~<br>07-12-07 |

**Fig 15. Package outline SOT833-1 (XSON8)**

**XQFN8U: plastic extremely thin quad flat package; no leads; 8 terminals; UTLP based; body 1.6 x 1.6 x 0.5 mm** **SOT902-1**




**DIMENSIONS (mm are the original dimensions)**

| UNIT | A max | $A_1$ | b | D | E | e | $e_1$ | L | $L_1$ | v | w | y | $y_1$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| mm | 0.5 | 0.05<br>0.00 | 0.25<br>0.15 | 1.65<br>1.55 | 1.65<br>1.55 | 0.55 | 0.5 | 0.35<br>0.25 | 0.15<br>0.05 | 0.1 | 0.05 | 0.05 | 0.05 |

| OUTLINE VERSION | REFERENCES | | | | EUROPEAN PROJECTION | ISSUE DATE |
|---|---|---|---|---|---|---|
| | IEC | JEDEC | JEITA | | | |
| SOT902-1 | - - - | MO-255 | - - - | | | ~~05-11-25~~<br>07-11-14 |

**Fig 16. Package outline SOT902-1 (XQFN8U)**

## 17. Abbreviations

**Table 12. Abbreviations**

| Acronym | Description |
|---|---|
| CMOS | Complementary Metal-Oxide Semiconductor |
| DUT | Device Under Test |
| ESD | ElectroStatic Discharge |
| HBM | Human Body Model |
| MM | Machine Model |
| TTL | Transistor-Transistor Logic |

## 18. Revision history

**Table 13. Revision history**

| Document ID | Release date | Data sheet status | Change notice | Supersedes |
|---|---|---|---|---|
| 74LVC3G17_5 | 20080313 | Product data sheet | - | 74LVC3G17_4 |
| Modifications: | • Figure 1 and Figure 2: pin numbers removed from logic symbols<br>• Figure 16: package outline drawing updated to latest version | | | |
| 74LVC3G17_4 | 20070521 | Product data sheet | - | 74LVC3G17_3 |
| 74LVC3G17_3 | 20050131 | Product data sheet | - | 74LVC3G17_2 |
| 74LVC3G17_2 | 20041103 | Product specification | - | 74LVC3G17_1 |
| 74LVC3G17_1 | 20040624 | Product specification | - | - |

# 19. Legal information

## 19.1 Data sheet status

| Document status[1][2] | Product status[3] | Definition |
|---|---|---|
| Objective [short] data sheet | Development | This document contains data from the objective specification for product development. |
| Preliminary [short] data sheet | Qualification | This document contains data from the preliminary specification. |
| Product [short] data sheet | Production | This document contains the product specification. |

[1] Please consult the most recently issued document before initiating or completing a design.

[2] The term 'short data sheet' is explained in section "Definitions".

[3] The product status of device(s) described in this document may have changed since this document was published and may differ in case of multiple devices. The latest product status information is available on the Internet at URL http://www.nxp.com.

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## 21. Contents





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