

# 74AHC3G14; 74AHCT3G14

Triple inverting Schmitt trigger

Rev. 8 — 13 May 2013

Product data sheet

## 1. General description

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74AHC3G14 and 74AHCT3G14 are high-speed Si-gate CMOS devices. They provide three inverting buffers with Schmitt trigger action. These devices are capable of transforming slowly changing input signals into sharply defined, jitter-free output signals.

The AHC device has CMOS input switching levels and supply voltage range 2 V to 5.5 V.

The AHCT device has TTL input switching levels and supply voltage range 4.5 V to 5.5 V.

## 2. Features and benefits

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- Symmetrical output impedance
- High noise immunity
- ESD protection:
  - ◆ HBM JESD22-A114F exceeds 2000 V
  - ◆ MM JESD22-A115-A exceeds 200 V
  - ◆ CDM JESD22-C101D exceeds 1000 V
- Low power dissipation
- Balanced propagation delays
- Multiple package options
- Specified from  $-40\text{ }^{\circ}\text{C}$  to  $+85\text{ }^{\circ}\text{C}$  and  $-40\text{ }^{\circ}\text{C}$  to  $+125\text{ }^{\circ}\text{C}$

## 3. Applications

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- Wave and pulse shaper for highly noisy environment
- Astable multivibrator
- Monostable multivibrator



## 4. Ordering information

Table 1. Ordering information

| Type number                 | Package           |        |   | Version  |
|-----------------------------|-------------------|--------|---|----------|
|                             | Temperature range | Name   | Description   |          |
| 74AHC3G14DP<br>74AHCT3G14DP | -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 |
| 74AHC3G14DC<br>74AHCT3G14DC | -40 °C to +125 °C | VSSOP8 | plastic very thin shrink small outline package; 8 leads; body width 2.3 mm                  | SOT765-1 |
| 74AHC3G14GT<br>74AHCT3G14GT | -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 |
| 74AHC3G14GD<br>74AHCT3G14GD | -40 °C to +125 °C | XSON8  | plastic extremely thin small outline package; no leads; 8 terminals; body 3 × 2 × 0.5 mm    | SOT996-2 |

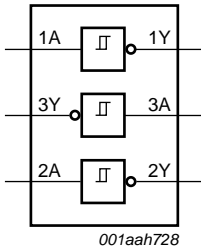
## 5. Marking

Table 2. Marking codes

| Type number  | Marking code <sup>[1]</sup> |
|--------------|-----------------------------|
| 74AHC3G14DP  | A14                         |
| 74AHCT3G14DP | C14                         |
| 74AHC3G14DC  | A14                         |
| 74AHCT3G14DC | C14                         |
| 74AHC3G14GT  | A14                         |
| 74AHCT3G14GT | C14                         |
| 74AHC3G14GD  | A14                         |
| 74AHCT3G14GD | C14                         |

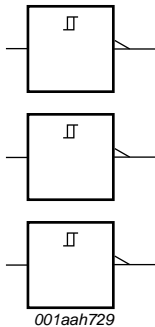
[1] The pin 1 indicator is located on the lower left corner of the device, below the marking code.

## 6. Functional diagram



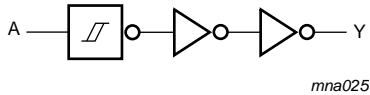
001aah728

**Fig 1. Logic symbol**



001aah729

**Fig 2. IEC logic symbol**

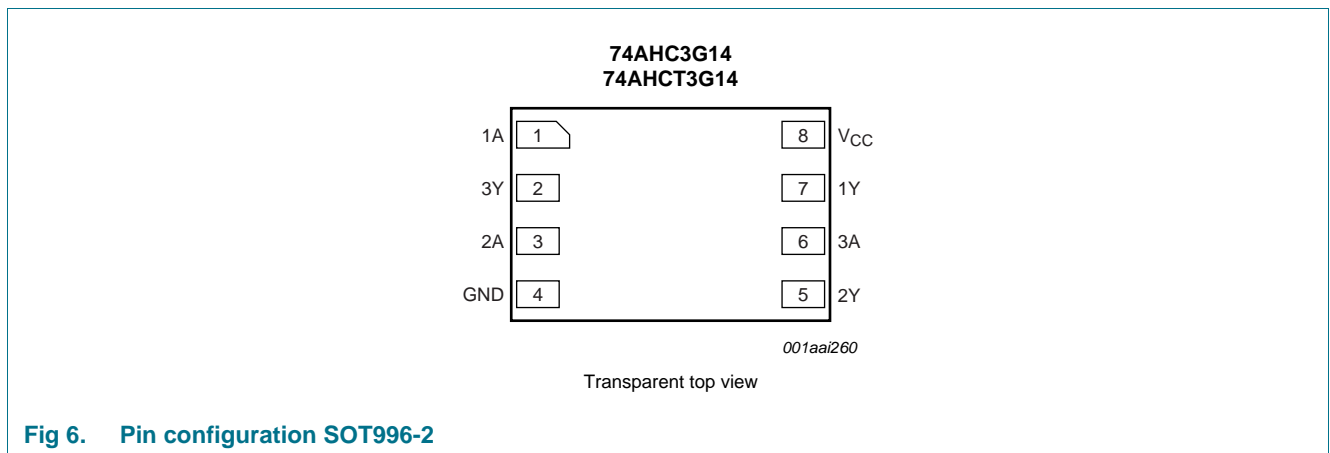
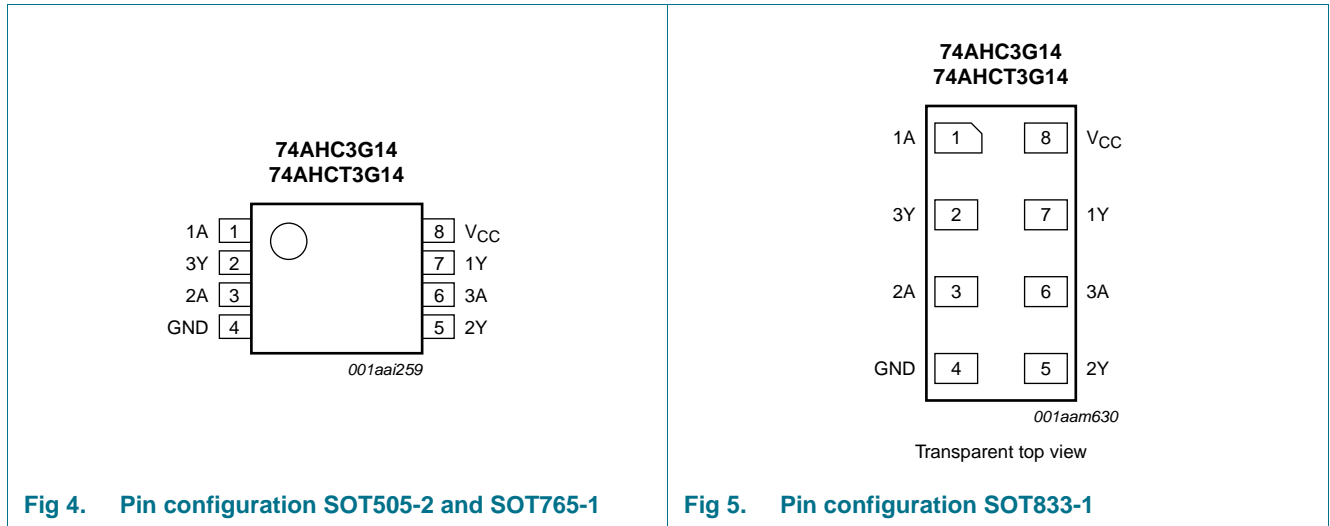


*mna025*

**Fig 3. Logic diagram (one Schmitt trigger)**

## 7. Pinning information

### 7.1 Pinning



### 7.2 Pin description

**Table 3. Pin description**

| Symbol          | Pin     | Description    |
|-----------------|---------|----------------|
| 1A, 2A, 3A      | 1, 3, 6 | data input     |
| GND             | 4       | ground (0 V)   |
| 1Y, 2Y, 3Y      | 7, 5, 2 | data output    |
| V <sub>CC</sub> | 8       | supply voltage |

## 8. Functional description

Table 4. Function table [\[1\]](#)

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

[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).

| Symbol    | Parameter               | Conditions                               | Min                   | Max  | Unit |
|-----------|-------------------------|--|-----------------------|------|------|
| $V_{CC}$  | supply voltage          |  | -0.5                  | +7.0 | V    |
| $V_I$     | input voltage           |  | -0.5                  | +7.0 | V    |
| $I_{IK}$  | input clamping current  | $V_I < -0.5$ V                           | -20                   | -    | mA   |
| $I_{OK}$  | output clamping current | $V_O < -0.5$ V or $V_O > V_{CC} + 0.5$ V | <a href="#">[1]</a> - | ±20  | mA   |
| $I_O$     | output current          | $-0.5$ V < $V_O$ < $V_{CC} + 0.5$ V      | -                     | ±25  | mA   |
| $I_{CC}$  | supply current          |  | -                     | 75   | mA   |
| $I_{GND}$ | ground current          |  | -75                   | -    | mA   |
| $T_{stg}$ | storage temperature     |  | -65                   | +150 | °C   |
| $P_{tot}$ | total power dissipation | $T_{amb} = -40$ °C to +125 °C            | <a href="#">[2]</a> - | 250  | mW   |

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

[2] For TSSOP8 package: above 55 °C the value of  $P_{tot}$  derates linearly at 2.5 mW/K.

For VSSOP8 package: above 110 °C the value of  $P_{tot}$  derates linearly at 8 mW/K.

For XSON8 packages: above 118 °C the value of  $P_{tot}$  derates linearly with 7.8 mW/K.

## 10. Recommended operating conditions

Table 6. Recommended operating conditions

Voltages are referenced to GND (ground = 0 V).

| Symbol    | Parameter           | Conditions | 74AHC3G14 |     |          | 74AHCT3G14 |     |          | Unit |
|-----------|---------------------|------------|-----------|-----|----------|------------|-----|----------|------|
|           |                     |            | Min       | Typ | Max      | Min        | Typ | Max      |      |
| $V_{CC}$  | supply voltage      |            | 2.0       | 5.0 | 5.5      | 4.5        | 5.0 | 5.5      | V    |
| $V_I$     | input voltage       |            | 0         | -   | 5.5      | 0          | -   | 5.5      | V    |
| $V_O$     | output voltage      |            | 0         | -   | $V_{CC}$ | 0          | -   | $V_{CC}$ | V    |
| $T_{amb}$ | ambient temperature |            | -40       | +25 | +125     | -40        | +25 | +125     | °C   |

## 11. Static characteristics

**Table 7. Static characteristics**

Voltages are referenced to GND (ground = 0 V).

| Symbol            | Parameter                 | Conditions   | 25 °C |     |      | -40 °C to +85 °C |      | -40 °C to +125 °C |      | Unit |
|-------------------|---------------------------|--|-------|-----|------|------------------|------|-------------------|------|------|
|                   |                           |  | Min   | Typ | Max  | Min              | Max  | Min               | Max  |      |
| <b>74AHC3G14</b>  |                           |  |       |     |      |                  |      |                   |      |      |
| V <sub>OH</sub>   | HIGH-level output voltage | V <sub>I</sub> = V <sub>T+</sub> or V <sub>T-</sub>  |       |     |      |                  |      |                   |      |      |
|                   |                           | I <sub>O</sub> = -50 μA; V <sub>CC</sub> = 2.0 V   | 1.9   | 2.0 | -    | 1.9              | -    | 1.9               | -    | V    |
|                   |                           | I <sub>O</sub> = -50 μA; V <sub>CC</sub> = 3.0 V   | 2.9   | 3.0 | -    | 2.9              | -    | 2.9               | -    | V    |
|                   |                           | I <sub>O</sub> = -50 μA; V <sub>CC</sub> = 4.5 V   | 4.4   | 4.5 | -    | 4.4              | -    | 4.4               | -    | V    |
|                   |                           | I <sub>O</sub> = -4.0 mA; V <sub>CC</sub> = 3.0 V  | 2.58  | -   | -    | 2.48             | -    | 2.40              | -    | V    |
|                   |                           | I <sub>O</sub> = -8.0 mA; V <sub>CC</sub> = 4.5 V  | 3.94  | -   | -    | 3.8              | -    | 3.70              | -    | V    |
| V <sub>OL</sub>   | LOW-level output voltage  | V <sub>I</sub> = V <sub>T+</sub> or V <sub>T-</sub>  |       |     |      |                  |      |                   |      |      |
|                   |                           | I <sub>O</sub> = 50 μA; V <sub>CC</sub> = 2.0 V  | -     | 0   | 0.1  | -                | 0.1  | -                 | 0.1  | V    |
|                   |                           | I <sub>O</sub> = 50 μA; V <sub>CC</sub> = 3.0 V  | -     | 0   | 0.1  | -                | 0.1  | -                 | 0.1  | V    |
|                   |                           | I <sub>O</sub> = 50 μA; V <sub>CC</sub> = 4.5 V  | -     | 0   | 0.1  | -                | 0.1  | -                 | 0.1  | V    |
|                   |                           | I <sub>O</sub> = 4.0 mA; V <sub>CC</sub> = 3.0 V   | -     | -   | 0.36 | -                | 0.44 | -                 | 0.55 | V    |
|                   |                           | I <sub>O</sub> = 8.0 mA; V <sub>CC</sub> = 4.5 V   | -     | -   | 0.36 | -                | 0.44 | -                 | 0.55 | V    |
| I <sub>I</sub>    | input leakage current     | V <sub>I</sub> = 5.5 V or GND; V <sub>CC</sub> = 0 V to 5.5 V  | -     | -   | 0.1  | -                | 1.0  | -                 | 2.0  | μA   |
| I <sub>CC</sub>   | supply current            | V <sub>I</sub> = V <sub>CC</sub> or GND; I <sub>O</sub> = 0 A; V <sub>CC</sub> = 5.5 V                                       | -     | -   | 1.0  | -                | 10   | -                 | 40   | μA   |
| C <sub>I</sub>    | input capacitance         |  | -     | 1.5 | 10   | -                | 10   | -                 | 10   | pF   |
| <b>74AHCT3G14</b> |                           |  |       |     |      |                  |      |                   |      |      |
| V <sub>OH</sub>   | HIGH-level output voltage | V <sub>I</sub> = V <sub>T+</sub> or V <sub>T-</sub> ; V <sub>CC</sub> = 4.5 V  |       |     |      |                  |      |                   |      |      |
|                   |                           | I <sub>O</sub> = -50 μA  | 4.4   | 4.5 | -    | 4.4              | -    | 4.4               | -    | V    |
|                   |                           | I <sub>O</sub> = -8.0 mA   | 3.94  | -   | -    | 3.8              | -    | 3.70              | -    | V    |
| V <sub>OL</sub>   | LOW-level output voltage  | V <sub>I</sub> = V <sub>T+</sub> or V <sub>T-</sub> ; V <sub>CC</sub> = 4.5 V  |       |     |      |                  |      |                   |      |      |
|                   |                           | I <sub>O</sub> = 50 μA   | -     | 0   | 0.1  | -                | 0.1  | -                 | 0.1  | V    |
|                   |                           | I <sub>O</sub> = 8.0 mA  | -     | -   | 0.36 | -                | 0.44 | -                 | 0.55 | V    |
| I <sub>I</sub>    | input leakage current     | V <sub>I</sub> = 5.5 V or GND; V <sub>CC</sub> = 0 V to 5.5 V  | -     | -   | 0.1  | -                | 1.0  | -                 | 2.0  | μA   |
| I <sub>CC</sub>   | supply current            | V <sub>I</sub> = V <sub>CC</sub> or GND; I <sub>O</sub> = 0 A; V <sub>CC</sub> = 5.5 V                                       | -     | -   | 1.0  | -                | 10   | -                 | 40   | μA   |
| ΔI <sub>CC</sub>  | additional supply current | per input pin; V <sub>I</sub> = 3.4 V; other inputs at V <sub>CC</sub> or GND; I <sub>O</sub> = 0 A; V <sub>CC</sub> = 5.5 V | -     | -   | 1.35 | -                | 1.5  | -                 | 1.5  | mA   |
| C <sub>I</sub>    | input capacitance         |  | -     | 1.5 | 10   | -                | 10   | -                 | 10   | pF   |

## 11.1 Transfer characteristics

**Table 8. Transfer characteristics**

At recommended operating conditions; voltages are referenced to GND (ground = 0 V). See [Figure 9](#) and [Figure 10](#).

| Symbol            | Parameter                        | Conditions              | 25 °C |     |      | -40 °C to +85 °C |      | -40 °C to +125 °C |      | Unit |
|-------------------|----------------------------------|-------------------------|-------|-----|------|------------------|------|-------------------|------|------|
|                   |                                  |                         | Min   | Typ | Max  | Min              | Max  | Min               | Max  |      |
| <b>74AHC3G14</b>  |                                  |                         |       |     |      |                  |      |                   |      |      |
| V <sub>T+</sub>   | positive-going threshold voltage | V <sub>CC</sub> = 3.0 V | -     | -   | 2.2  | -                | 2.2  | -                 | 2.2  | V    |
|                   |                                  | V <sub>CC</sub> = 4.5 V | -     | -   | 3.15 | -                | 3.15 | -                 | 3.15 | V    |
|                   |                                  | V <sub>CC</sub> = 5.5 V | -     | -   | 3.85 | -                | 3.85 | -                 | 3.85 | V    |
| V <sub>T-</sub>   | negative-going threshold voltage | V <sub>CC</sub> = 3.0 V | 0.9   | -   | -    | 0.9              | -    | 0.9               | -    | V    |
|                   |                                  | V <sub>CC</sub> = 4.5 V | 1.35  | -   | -    | 1.35             | -    | 1.35              | -    | V    |
|                   |                                  | V <sub>CC</sub> = 5.5 V | 1.65  | -   | -    | 1.65             | -    | 1.65              | -    | V    |
| V <sub>H</sub>    | hysteresis voltage               | V <sub>CC</sub> = 3.0 V | 0.3   | -   | 1.2  | 0.3              | 1.2  | 0.25              | 1.2  | V    |
|                   |                                  | V <sub>CC</sub> = 4.5 V | 0.4   | -   | 1.4  | 0.4              | 1.4  | 0.35              | 1.4  | V    |
|                   |                                  | V <sub>CC</sub> = 5.5 V | 0.5   | -   | 1.6  | 0.5              | 1.6  | 0.45              | 1.6  | V    |
| <b>74AHCT3G14</b> |                                  |                         |       |     |      |                  |      |                   |      |      |
| V <sub>T+</sub>   | positive-going threshold voltage | V <sub>CC</sub> = 4.5 V | -     | -   | 2.0  | -                | 2.0  | -                 | 2.0  | V    |
|                   |                                  | V <sub>CC</sub> = 5.5 V | -     | -   | 2.0  | -                | 2.0  | -                 | 2.0  | V    |
| V <sub>T-</sub>   | negative-going threshold voltage | V <sub>CC</sub> = 4.5 V | 0.5   | -   | -    | 0.5              | -    | 0.5               | -    | V    |
|                   |                                  | V <sub>CC</sub> = 5.5 V | 0.6   | -   | -    | 0.6              | -    | 0.6               | -    | V    |
| V <sub>H</sub>    | hysteresis voltage               | V <sub>CC</sub> = 4.5 V | 0.4   | -   | 1.4  | 0.4              | 1.4  | 0.35              | 1.4  | V    |
|                   |                                  | V <sub>CC</sub> = 5.5 V | 0.4   | -   | 1.6  | 0.4              | 1.6  | 0.35              | 1.6  | V    |

## 12. Dynamic characteristics

**Table 9. Dynamic characteristics**

GND = 0 V; t<sub>r</sub> = t<sub>f</sub> ≤ 3.0 ns; for test circuit see [Figure 8](#).

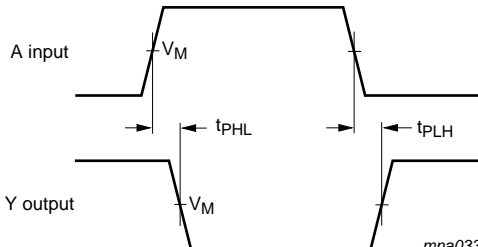
| Symbol           | Parameter                     | Conditions  | 25 °C |     |      | -40 °C to +85 °C |      | -40 °C to +125 °C |      | Unit |
|------------------|-------------------------------|---|-------|-----|------|------------------|------|-------------------|------|------|
|                  |                               |   | Min   | Typ | Max  | Min              | Max  | Min               | Max  |      |
| <b>74AHC3G14</b> |                               |   |       |     |      |                  |      |                   |      |      |
| t <sub>pd</sub>  | propagation delay             | nA to nY; see <a href="#">Figure 7</a>  | [1]   |     |      |                  |      |                   |      |      |
|                  |                               | V <sub>CC</sub> = 3.0 V to 3.6 V  | [2]   |     |      |                  |      |                   |      |      |
|                  |                               | C <sub>L</sub> = 15 pF  | -     | 4.2 | 12.8 | 1.0              | 15.0 | 1.0               | 16.5 | ns   |
|                  |                               | C <sub>L</sub> = 50 pF  | -     | 6.0 | 16.3 | 1.0              | 18.5 | 1.0               | 20.5 | ns   |
|                  |                               | V <sub>CC</sub> = 4.5 V to 5.5 V  | [3]   |     |      |                  |      |                   |      |      |
|                  |                               | C <sub>L</sub> = 15 pF  | -     | 3.2 | 8.6  | 1.0              | 10.0 | 1.0               | 11.0 | ns   |
|                  |                               | C <sub>L</sub> = 50 pF  | -     | 4.6 | 10.6 | 1.0              | 12.0 | 1.0               | 13.5 | ns   |
| C <sub>PD</sub>  | power dissipation capacitance | per buffer; C <sub>L</sub> = 50 pF; f <sub>i</sub> = 1 MHz; V <sub>i</sub> = GND to V <sub>CC</sub> | [4]   | -   | 10   | -                | -    | -                 | -    | pF   |

**Table 9. Dynamic characteristics ...continued**  
 GND = 0 V;  $t_r = t_f \leq 3.0$  ns; for test circuit see [Figure 8](#).

| Symbol            | Parameter                     | Conditions  | 25 °C |     |     | -40 °C to +85 °C |     | -40 °C to +125 °C |     | Unit |    |
|-------------------|-------------------------------|---|-------|-----|-----|------------------|-----|-------------------|-----|------|----|
|                   |                               |   | Min   | Typ | Max | Min              | Max | Min               | Max |      |    |
| <b>74AHCT3G14</b> |                               |   |       |     |     |                  |     |                   |     |      |    |
| $t_{pd}$          | propagation delay             | nA to nY;<br>$V_{CC} = 4.5$ V to 5.5 V                                  | [1]   |     |     |                  |     |                   |     |      |    |
|                   |                               | $C_L = 15$ pF   | [3]   | -   | 4.1 | 7.0              | 1.0 | 8.0               | 1.0 | 9.0  | ns |
|                   |                               | $C_L = 50$ pF   |       | -   | 5.9 | 8.5              | 1.0 | 10.0              | 1.0 | 11.0 | ns |
| $C_{PD}$          | power dissipation capacitance | per buffer;<br>$C_L = 50$ pF; $f_i = 1$ MHz;<br>$V_i = GND$ to $V_{CC}$ | [4]   | -   | 12  | -                | -   | -                 | -   | pF   |    |

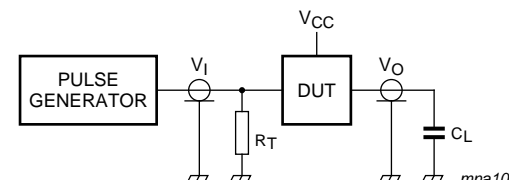
- [1]  $t_{pd}$  is the same as  $t_{PLH}$  and  $t_{PHL}$ .
- [2] Typical values are measured at  $V_{CC} = 3.3$  V.
- [3] Typical values are measured at  $V_{CC} = 5.0$  V.
- [4]  $C_{PD}$  is used to determine the dynamic power dissipation  $P_D$  ( $\mu$ W).  
 $P_D = C_{PD} \times V_{CC}^2 \times f_i + \Sigma (C_L \times V_{CC}^2 \times f_o)$  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;  
 $\Sigma(C_L \times V_{CC}^2 \times f_o)$  = sum of the outputs.

**13. Waveforms**



The test data is given in [Table 10](#)

**Fig 7. The input (nA) to output (nY) propagation delays**



Test data is given in [Table 10](#).  
 Definitions for test circuit:  
 $C_L$  = Load capacitance.  
 $R_T$  = Termination resistance should be equal to output impedance  $Z_o$  of the pulse generator.

**Fig 8. Test circuit for measuring switching times**

**Table 10. Test data**

| Type number | Input           |                     | Output              |
|-------------|-----------------|---------------------|---------------------|
|             | $V_i$           | $V_M$               | $V_M$               |
| 74AHC3G14   | GND to $V_{CC}$ | $0.5 \times V_{CC}$ | $0.5 \times V_{CC}$ |
| 74AHCT3G14  | GND to 3.0 V    | 1.5 V               | $0.5 \times V_{CC}$ |

## 13.1 Transfer characteristic waveforms

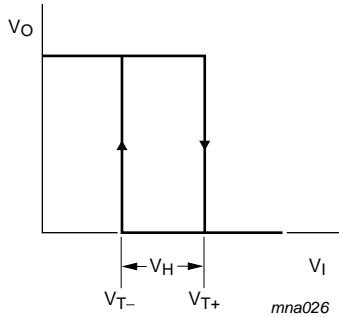


Fig 9. Transfer characteristic

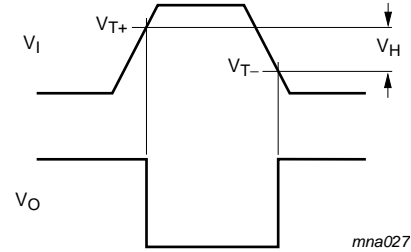
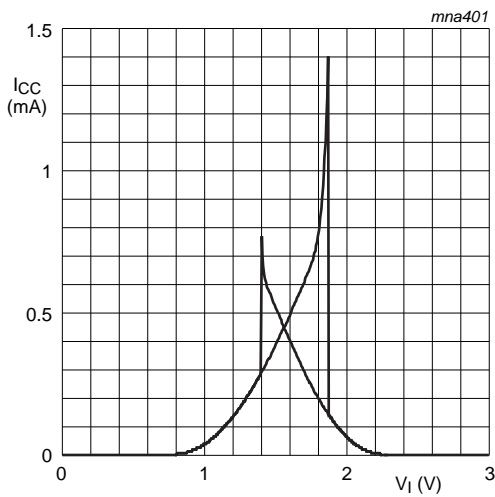
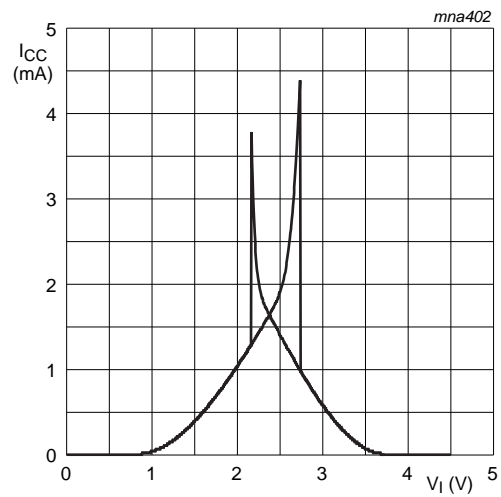


Fig 10. The definitions of  $V_{T+}$ ,  $V_{T-}$  and  $V_H$



$V_{CC} = 3.0\text{ V}$ .

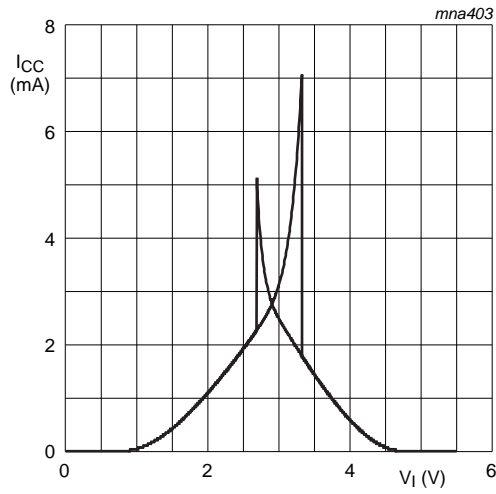
Fig 11. Typical 74AHC3G14 transfer characteristics



$V_{CC} = 4.5\text{ V}$ .

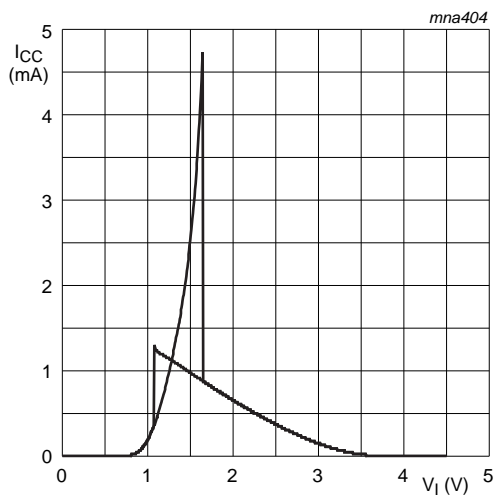
Fig 12. Typical 74AHC3G14 transfer characteristics





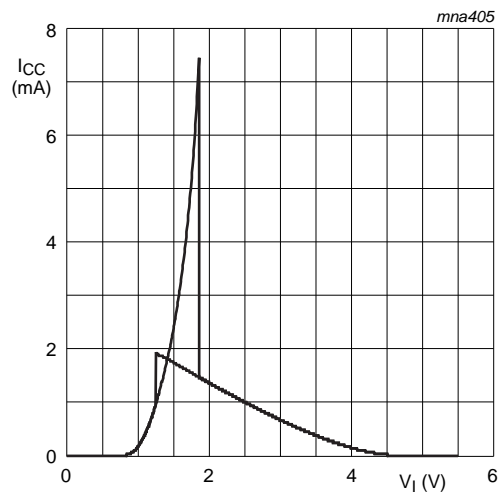
$V_{CC} = 5.5$  V.

**Fig 13. Typical 74AHC3G14 transfer characteristics**



$V_{CC} = 4.5$  V.

**Fig 14. Typical 74AHCT3G14 transfer characteristics**



$V_{CC} = 5.5$  V.

**Fig 15. Typical 74AHCT3G14 transfer characteristics**

14. Application information

The slow input rise and fall times cause additional power dissipation, which can be calculated using the following formula:

$$P_{add} = f_i \times (t_r \times \Delta I_{CC(AV)} + t_f \times \Delta I_{CC(AV)}) \times V_{CC}$$

where:

$P_{add}$  = additional power dissipation ( $\mu W$ );

$f_i$  = input frequency (MHz);

$t_r$  = input rise time (ns); 10 % to 90 %;

$t_f$  = input fall time (ns); 90 % to 10 %;

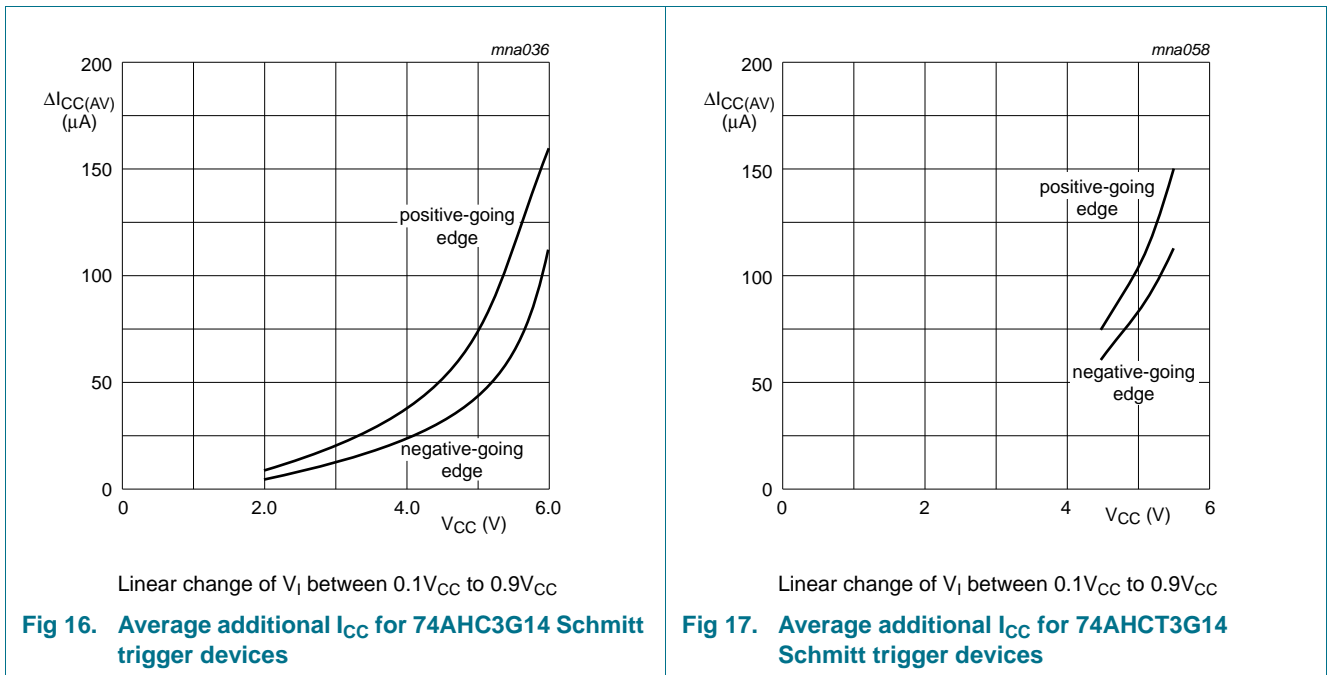
$\Delta I_{CC(AV)}$  = average additional supply current ( $\mu A$ ).

$\Delta I_{CC(AV)}$  differs with positive or negative input transitions, as shown in [Figure 16](#) and [Figure 17](#).

For 74AHC3G14 and 74AHCT3G14 used in relaxation oscillator circuit, see [Figure 18](#).

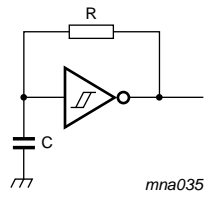
**Note to the application information:**

1. All values given are typical unless otherwise specified.



**Fig 16. Average additional  $I_{CC}$  for 74AHC3G14 Schmitt trigger devices**

**Fig 17. Average additional  $I_{CC}$  for 74AHCT3G14 Schmitt trigger devices**



For 74AHC3G14:  $f = \frac{1}{T} \approx \frac{1}{0.55 \times RC}$

For 74AHCT3G14:  $f = \frac{1}{T} \approx \frac{1}{0.60 \times RC}$

**Fig 18. Relaxation oscillator using the 74AHC3G14 and 74AHCT3G14**

## 15. Package outline

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

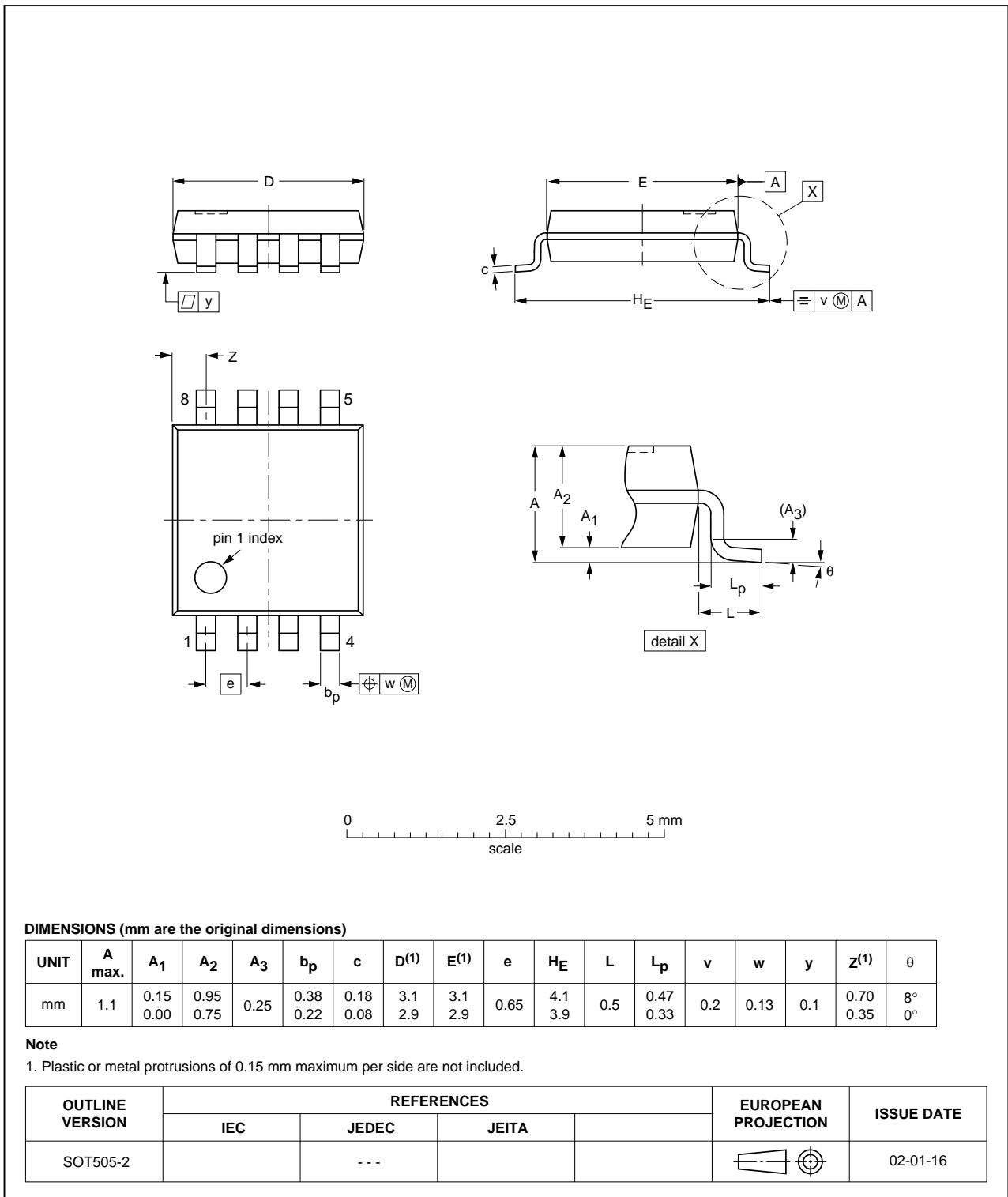


Fig 19. Package outline SOT505-2 (TSSOP8)

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

SOT765-1

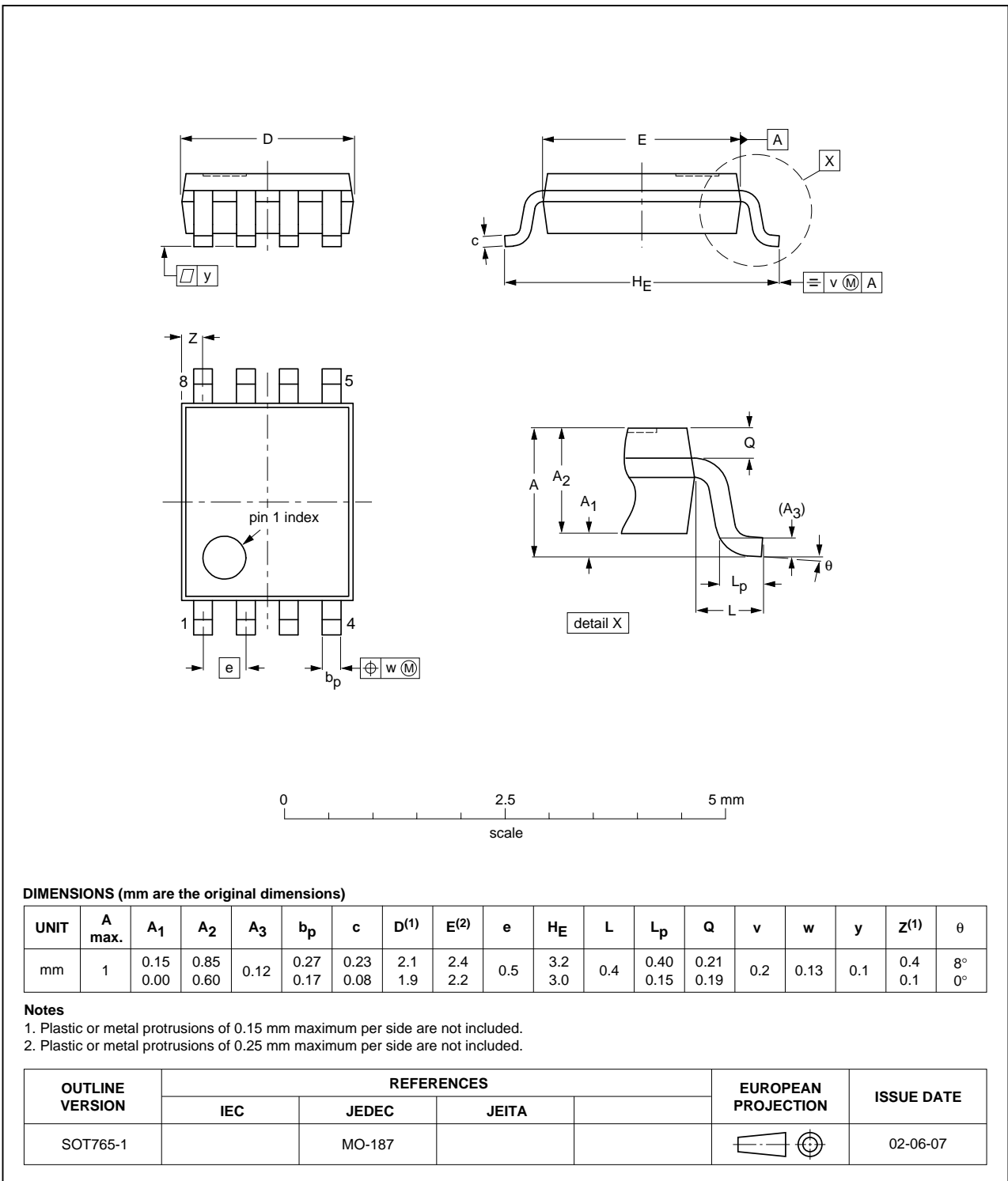


Fig 20. Package outline SOT765-1 (VSSOP8)

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

SOT833-1

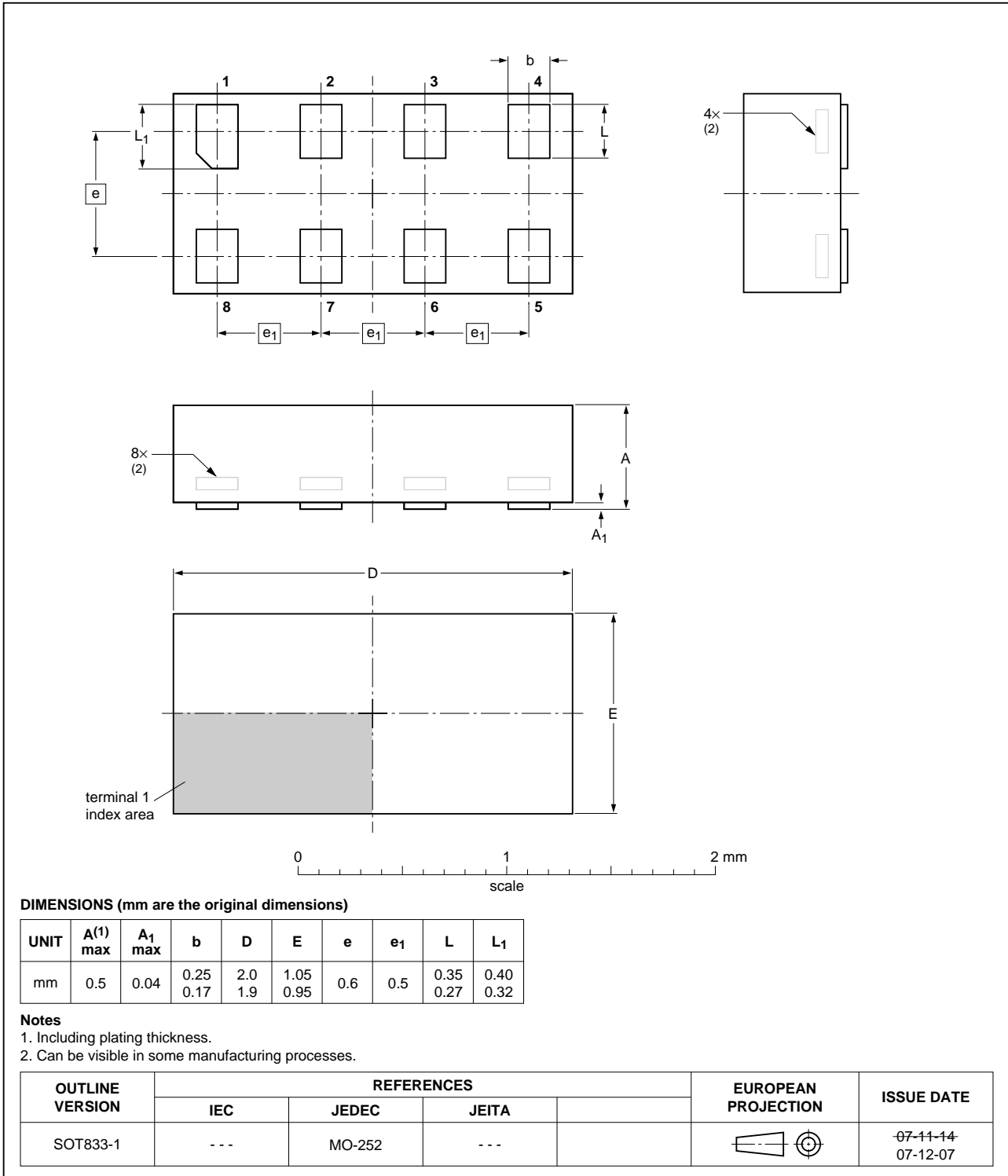
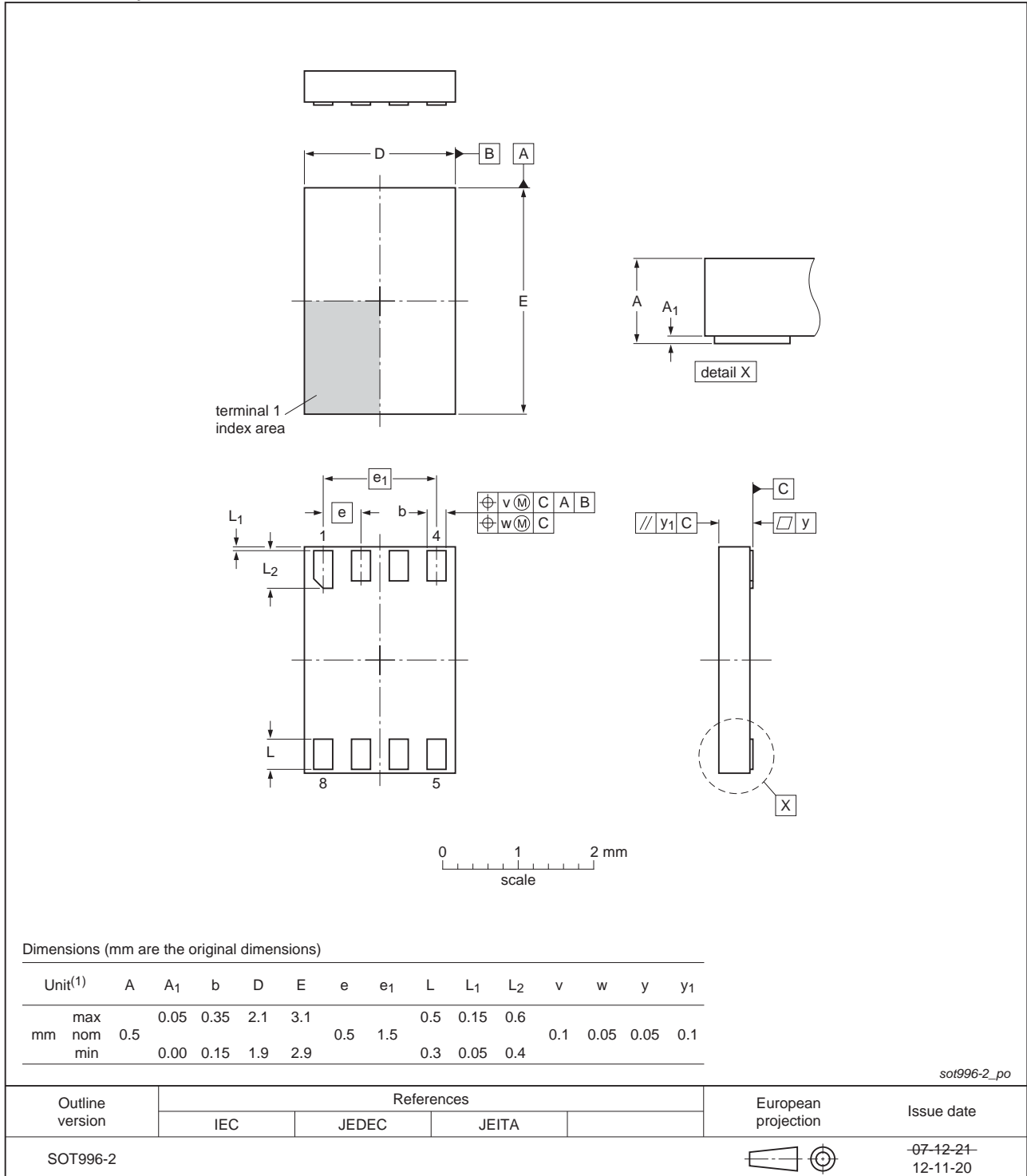


Fig 21. Package outline SOT833-1 (XSON8)

**XSON8: plastic extremely thin small outline package; no leads;  
8 terminals; body 3 x 2 x 0.5 mm**

SOT996-2



**Fig 22. Package outline SOT996-2 (XSON8)**

## 16. Abbreviations

Table 11. Abbreviations

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

## 17. Revision history

Table 12. Revision history

| Document ID        | Release date  | Data sheet status     | Change notice | Supersedes         |
|--------------------|---|-----------------------|---------------|--------------------|
| 74AHC_AHCT3G14 v.8 | 20130513  | Product data sheet    | -             | 74AHC_AHCT3G14 v.7 |
| Modifications:     | <ul style="list-style-type: none"> <li>For type number 74AHC3G14GD and 74AHCT3G14GD XSON8U has changed to XSON8.</li> </ul> |                       |               |                    |
| 74AHC_AHCT3G14 v.7 | 20111108  | Product data sheet    | -             | 74AHC_AHCT3G14 v.6 |
| Modifications:     | <ul style="list-style-type: none"> <li>Legal pages updated.</li> </ul>  |                       |               |                    |
| 74AHC_AHCT3G14 v.6 | 20101118  | Product data sheet    | -             | 74AHC_AHCT3G14 v.5 |
| 74AHC_AHCT3G14 v.5 | 20100923  | Product data sheet    | -             | 74AHC_AHCT3G14 v.4 |
| 74AHC_AHCT3G14 v.4 | 20090505  | Product data sheet    | -             | 74AHC_AHCT3G14 v.3 |
| 74AHC_AHCT3G14 v.3 | 20080617  | Product data sheet    | -             | 74AHC_AHCT3G14 v.2 |
| 74AHC_AHCT3G14 v.2 | 20041018  | Product specification | -             | 74AHC_AHCT3G14 v.1 |
| 74AHC_AHCT3G14 v.1 | 20031127  | Product specification | -             | -                  |



## 18. Legal information

### 18.1 Data sheet status

| Document status <sup>[1][2]</sup> | Product status <sup>[3]</sup> | 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".

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## 20. Contents

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|           |   |           |
|-----------|---|-----------|
| <b>1</b>  | <b>General description</b> .....              | <b>1</b>  |
| <b>2</b>  | <b>Features and benefits</b> .....            | <b>1</b>  |
| <b>3</b>  | <b>Applications</b> .....                     | <b>1</b>  |
| <b>4</b>  | <b>Ordering information</b> .....             | <b>2</b>  |
| <b>5</b>  | <b>Marking</b> .....                          | <b>2</b>  |
| <b>6</b>  | <b>Functional diagram</b> .....               | <b>2</b>  |
| <b>7</b>  | <b>Pinning information</b> .....              | <b>3</b>  |
| 7.1       | Pinning .....                                 | 3         |
| 7.2       | Pin description .....                         | 3         |
| <b>8</b>  | <b>Functional description</b> .....           | <b>4</b>  |
| <b>9</b>  | <b>Limiting values</b> .....                  | <b>4</b>  |
| <b>10</b> | <b>Recommended operating conditions</b> ..... | <b>4</b>  |
| <b>11</b> | <b>Static characteristics</b> .....           | <b>5</b>  |
| 11.1      | Transfer characteristics .....                | 6         |
| <b>12</b> | <b>Dynamic characteristics</b> .....          | <b>6</b>  |
| <b>13</b> | <b>Waveforms</b> .....                        | <b>7</b>  |
| 13.1      | Transfer characteristic waveforms .....       | 8         |
| <b>14</b> | <b>Application information</b> .....          | <b>10</b> |
| <b>15</b> | <b>Package outline</b> .....                  | <b>12</b> |
| <b>16</b> | <b>Abbreviations</b> .....                    | <b>16</b> |
| <b>17</b> | <b>Revision history</b> .....                 | <b>16</b> |
| <b>18</b> | <b>Legal information</b> .....                | <b>17</b> |
| 18.1      | Data sheet status .....                       | 17        |
| 18.2      | Definitions .....                             | 17        |
| 18.3      | Disclaimers .....                             | 17        |
| 18.4      | Trademarks .....                              | 18        |
| <b>19</b> | <b>Contact information</b> .....              | <b>18</b> |
| <b>20</b> | <b>Contents</b> .....                         | <b>19</b> |

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