

# 74AUP2G79

Low-power dual D-type flip-flop; positive-edge trigger

Rev. 12 — 18 July 2023

Product data sheet

## 1. General description

The 74AUP2G79 provides the dual positive-edge triggered D-type flip-flop. Information on the data input (nD) is transferred to the nQ output on the LOW-to-HIGH transition of the clock pulse (nCP). The nD input must be stable one set-up time prior to the LOW-to-HIGH clock transition for predictable operation.

Schmitt trigger action at all inputs makes the circuit tolerant to slower input rise and fall times across the entire  $V_{CC}$  range from 0.8 V to 3.6 V.

This device ensures a very low static and dynamic power consumption across the entire  $V_{CC}$  range from 0.8 V to 3.6 V.

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 and benefits

- Wide supply voltage range from 0.8 V to 3.6 V
- High noise immunity
- Complies with JEDEC standards:
  - JESD8-12 (0.8 V to 1.3 V)
  - JESD8-11 (0.9 V to 1.65 V)
  - JESD8-7 (1.2 V to 1.95 V)
  - JESD8-5 (1.8 V to 2.7 V)
  - JESD8-B (2.7 V to 3.6 V)
- Low static power consumption;  $I_{CC} = 0.9 \mu\text{A}$  (maximum)
- Latch-up performance exceeds 100 mA per JESD78 Class II
- Inputs accept voltages up to 3.6 V
- Low noise overshoot and undershoot < 10 % of  $V_{CC}$
- $I_{OFF}$  circuitry provides partial Power-down mode operation
- ESD protection:
  - HBM: ANSI/ESDA/JEDEC JS-001 class 3A exceeds 5000 V
  - CDM: ANSI/ESDA/JEDEC JS-002 class C3 exceeds 1000 V
- Multiple package options
- Specified from -40 °C to +85 °C and -40 °C to +125 °C

3. Ordering information

Table 1. Ordering information

| Type number                 | Package           |        |                                                                                             |                          |
|-----------------------------|-------------------|--------|---------------------------------------------------------------------------------------------|--------------------------|
|                             | Temperature range | Name   | Description                                                                                 | Version                  |
| <a href="#">74AUP2G79DC</a> | -40 °C to +125 °C | VSSOP8 | plastic very thin shrink small outline package; 8 leads; body width 2.3 mm                  | <a href="#">SOT765-1</a> |
| <a href="#">74AUP2G79GT</a> | -40 °C to +125 °C | XSON8  | plastic extremely thin small outline package; no leads; 8 terminals; body 1 × 1.95 × 0.5 mm | <a href="#">SOT833-1</a> |
| <a href="#">74AUP2G79GN</a> | -40 °C to +125 °C | XSON8  | extremely thin small outline package; no leads; 8 terminals; body 1.2 × 1.0 × 0.35 mm       | <a href="#">SOT1116</a>  |
| <a href="#">74AUP2G79GS</a> | -40 °C to +125 °C | XSON8  | extremely thin small outline package; no leads; 8 terminals; body 1.35 × 1.0 × 0.35 mm      | <a href="#">SOT1203</a>  |

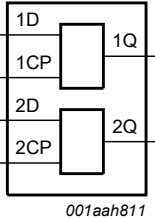
4. Marking

Table 2. Marking codes

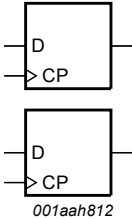
| Type number | Marking code[1] |
|-------------|-----------------|
| 74AUP2G79DC | p79             |
| 74AUP2G79GT | p79             |
| 74AUP2G79GN | pP              |
| 74AUP2G79GS | pP              |

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

5. Functional diagram



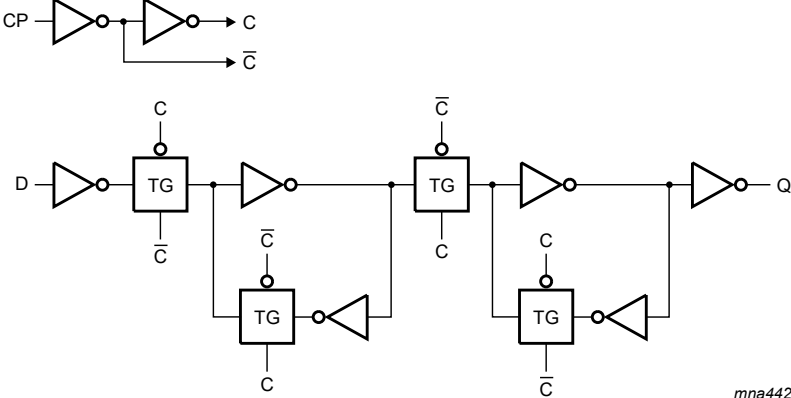
001aah811



001aah812

**Fig. 1. Logic symbol**

**Fig. 2. IEC logic symbol**

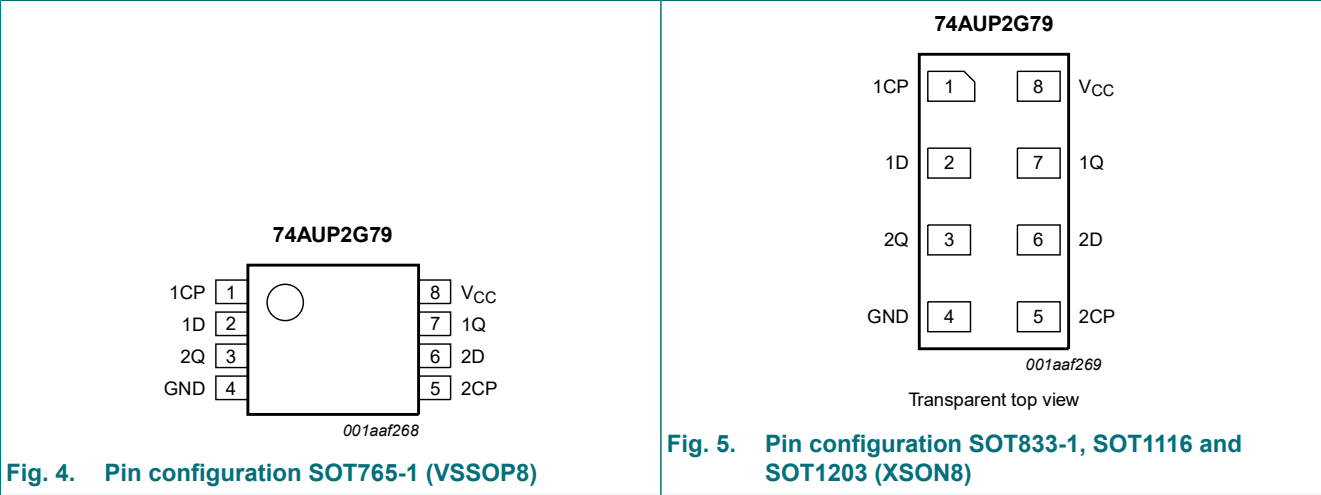


mna442

**Fig. 3. Logic diagram (one flip-flop)**

6. Pinning information

6.1. Pinning



6.2. Pin description

Table 3. Pin description

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

7. Functional description

Table 4. Function table

*H = HIGH voltage level; L = LOW voltage level; ↑ = LOW-to-HIGH CP transition; X = don't care; q = lower case letter indicates the state of referenced input, one set-up time prior to the LOW-to-HIGH CP transition.*

| Input |    | Output |
|-------|----|--------|
| nCP   | nD | nQ     |
| ↑     | L  | L      |
| ↑     | H  | H      |
| L     | X  | q      |

8. 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 <sub>CC</sub>  | supply voltage          |                                          | -0.5 | +4.6 | V    |
| I <sub>IK</sub>  | input clamping current  | V <sub>I</sub> < 0 V                     | -50  | -    | mA   |
| V <sub>I</sub>   | input voltage           | [1]                                      | -0.5 | +4.6 | V    |
| I <sub>OK</sub>  | output clamping current | V <sub>O</sub> < 0 V                     | -50  | -    | mA   |
| V <sub>O</sub>   | output voltage          | Active mode and Power-down mode [1]      | -0.5 | +4.6 | V    |
| I <sub>O</sub>   | output current          | V <sub>O</sub> = 0 V to V <sub>CC</sub>  | -    | ±20  | mA   |
| I <sub>CC</sub>  | supply current          |                                          | -    | 50   | mA   |
| I <sub>GND</sub> | ground current          |                                          | -50  | -    | mA   |
| T <sub>stg</sub> | storage temperature     |                                          | -65  | +150 | °C   |
| P <sub>tot</sub> | total power dissipation | T <sub>amb</sub> = -40 °C to +125 °C [2] | -    | 250  | mW   |

- [1] The minimum input and output voltage ratings may be exceeded if the input and output current ratings are observed.  
[2] For SOT765-1 (VSSOP8) package: P<sub>tot</sub> derates linearly with 4.9 mW/K above 99 °C.  
For SOT833-1 (XSON8) package: P<sub>tot</sub> derates linearly with 3.1 mW/K above 68 °C.  
For SOT1116 (XSON8) package: P<sub>tot</sub> derates linearly with 4.2 mW/K above 90 °C.  
For SOT1203 (XSON8) package: P<sub>tot</sub> derates linearly with 3.6 mW/K above 81 °C.

9. Recommended operating conditions

Table 6. Operating conditions

| Symbol           | Parameter                           | Conditions                             | Min | Max             | Unit |
|------------------|-------------------------------------|----------------------------------------|-----|-----------------|------|
| V <sub>CC</sub>  | supply voltage                      |                                        | 0.8 | 3.6             | V    |
| V <sub>I</sub>   | input voltage                       |                                        | 0   | 3.6             | V    |
| V <sub>O</sub>   | output voltage                      | Active mode                            | 0   | V <sub>CC</sub> | V    |
|                  |                                     | Power-down mode; V <sub>CC</sub> = 0 V | 0   | 3.6             | V    |
| T <sub>amb</sub> | ambient temperature                 |                                        | -40 | +125            | °C   |
| Δt/ΔV            | input transition rise and fall rate | V <sub>CC</sub> = 0.8 V to 3.6 V       | 0   | 200             | ns/V |

## 10. Static characteristics

**Table 7. Static characteristics**

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

| Symbol                         | Parameter                            | Conditions                                                                                              | Min                   | Typ | Max                 | Unit |
|--------------------------------|--------------------------------------|---------------------------------------------------------------------------------------------------------|-----------------------|-----|---------------------|------|
| <b>T<sub>amb</sub> = 25 °C</b> |                                      |                                                                                                         |                       |     |                     |      |
| V <sub>IH</sub>                | HIGH-level input voltage             | V <sub>CC</sub> = 0.8 V                                                                                 | 0.70V <sub>CC</sub>   | -   | -                   | V    |
|                                |                                      | V <sub>CC</sub> = 0.9 V to 1.95 V                                                                       | 0.65V <sub>CC</sub>   | -   | -                   | V    |
|                                |                                      | V <sub>CC</sub> = 2.3 V to 2.7 V                                                                        | 1.6                   | -   | -                   | V    |
|                                |                                      | V <sub>CC</sub> = 3.0 V to 3.6 V                                                                        | 2.0                   | -   | -                   | V    |
| V <sub>IL</sub>                | LOW-level input voltage              | V <sub>CC</sub> = 0.8 V                                                                                 | -                     | -   | 0.30V <sub>CC</sub> | V    |
|                                |                                      | V <sub>CC</sub> = 0.9 V to 1.95 V                                                                       | -                     | -   | 0.35V <sub>CC</sub> | V    |
|                                |                                      | V <sub>CC</sub> = 2.3 V to 2.7 V                                                                        | -                     | -   | 0.7                 | V    |
|                                |                                      | V <sub>CC</sub> = 3.0 V to 3.6 V                                                                        | -                     | -   | 0.9                 | V    |
| V <sub>OH</sub>                | HIGH-level output voltage            | V <sub>I</sub> = V <sub>IH</sub> or V <sub>IL</sub>                                                     |                       |     |                     |      |
|                                |                                      | I <sub>O</sub> = -20 µA; V <sub>CC</sub> = 0.8 V to 3.6 V                                               | V <sub>CC</sub> - 0.1 | -   | -                   | V    |
|                                |                                      | I <sub>O</sub> = -1.1 mA; V <sub>CC</sub> = 1.1 V                                                       | 0.75V <sub>CC</sub>   | -   | -                   | V    |
|                                |                                      | I <sub>O</sub> = -1.7 mA; V <sub>CC</sub> = 1.4 V                                                       | 1.11                  | -   | -                   | V    |
|                                |                                      | I <sub>O</sub> = -1.9 mA; V <sub>CC</sub> = 1.65 V                                                      | 1.32                  | -   | -                   | V    |
|                                |                                      | I <sub>O</sub> = -2.3 mA; V <sub>CC</sub> = 2.3 V                                                       | 2.05                  | -   | -                   | V    |
|                                |                                      | I <sub>O</sub> = -3.1 mA; V <sub>CC</sub> = 2.3 V                                                       | 1.9                   | -   | -                   | V    |
|                                |                                      | I <sub>O</sub> = -2.7 mA; V <sub>CC</sub> = 3.0 V                                                       | 2.72                  | -   | -                   | V    |
|                                |                                      | I <sub>O</sub> = -4.0 mA; V <sub>CC</sub> = 3.0 V                                                       | 2.6                   | -   | -                   | V    |
| V <sub>OL</sub>                | LOW-level output voltage             | V <sub>I</sub> = V <sub>IH</sub> or V <sub>IL</sub>                                                     |                       |     |                     |      |
|                                |                                      | I <sub>O</sub> = 20 µA; V <sub>CC</sub> = 0.8 V to 3.6 V                                                | -                     | -   | 0.1                 | V    |
|                                |                                      | I <sub>O</sub> = 1.1 mA; V <sub>CC</sub> = 1.1 V                                                        | -                     | -   | 0.3V <sub>CC</sub>  | V    |
|                                |                                      | I <sub>O</sub> = 1.7 mA; V <sub>CC</sub> = 1.4 V                                                        | -                     | -   | 0.31                | V    |
|                                |                                      | I <sub>O</sub> = 1.9 mA; V <sub>CC</sub> = 1.65 V                                                       | -                     | -   | 0.31                | V    |
|                                |                                      | I <sub>O</sub> = 2.3 mA; V <sub>CC</sub> = 2.3 V                                                        | -                     | -   | 0.31                | V    |
|                                |                                      | I <sub>O</sub> = 3.1 mA; V <sub>CC</sub> = 2.3 V                                                        | -                     | -   | 0.44                | V    |
|                                |                                      | I <sub>O</sub> = 2.7 mA; V <sub>CC</sub> = 3.0 V                                                        | -                     | -   | 0.31                | V    |
|                                |                                      | I <sub>O</sub> = 4.0 mA; V <sub>CC</sub> = 3.0 V                                                        | -                     | -   | 0.44                | V    |
| I <sub>I</sub>                 | input leakage current                | V <sub>I</sub> = GND to 3.6 V; V <sub>CC</sub> = 0 V to 3.6 V                                           | -                     | -   | ±0.1                | µA   |
| I <sub>OFF</sub>               | power-off leakage current            | V <sub>I</sub> or V <sub>O</sub> = 0 V to 3.6 V; V <sub>CC</sub> = 0 V                                  | -                     | -   | ±0.2                | µA   |
| ΔI <sub>OFF</sub>              | additional power-off leakage current | V <sub>I</sub> or V <sub>O</sub> = 0 V to 3.6 V; V <sub>CC</sub> = 0 V to 0.2 V                         | -                     | -   | ±0.2                | µA   |
| I <sub>CC</sub>                | supply current                       | V <sub>I</sub> = GND or V <sub>CC</sub> ; I <sub>O</sub> = 0 A;<br>V <sub>CC</sub> = 0.8 V to 3.6 V     | -                     | -   | 0.5                 | µA   |
| ΔI <sub>CC</sub>               | additional supply current            | per pin; V <sub>I</sub> = V <sub>CC</sub> - 0.6 V; I <sub>O</sub> = 0 A;<br>V <sub>CC</sub> = 3.3 V [1] | -                     | -   | 40                  | µA   |
| C <sub>I</sub>                 | input capacitance                    | V <sub>CC</sub> = 0 V to 3.6 V; V <sub>I</sub> = GND or V <sub>CC</sub>                                 | -                     | 0.6 | -                   | pF   |
| C <sub>O</sub>                 | output capacitance                   | V <sub>O</sub> = GND; V <sub>CC</sub> = 0 V                                                             | -                     | 1.3 | -                   | pF   |

## Low-power dual D-type flip-flop; positive-edge trigger

| Symbol                                    | Parameter                            | Conditions                                                                                              | Min                   | Typ | Max                 | Unit |
|-------------------------------------------|--------------------------------------|---------------------------------------------------------------------------------------------------------|-----------------------|-----|---------------------|------|
| <b>T<sub>amb</sub> = -40 °C to +85 °C</b> |                                      |                                                                                                         |                       |     |                     |      |
| V <sub>IH</sub>                           | HIGH-level input voltage             | V <sub>CC</sub> = 0.8 V                                                                                 | 0.70V <sub>CC</sub>   | -   | -                   | V    |
|                                           |                                      | V <sub>CC</sub> = 0.9 V to 1.95 V                                                                       | 0.65V <sub>CC</sub>   | -   | -                   | V    |
|                                           |                                      | V <sub>CC</sub> = 2.3 V to 2.7 V                                                                        | 1.6                   | -   | -                   | V    |
|                                           |                                      | V <sub>CC</sub> = 3.0 V to 3.6 V                                                                        | 2.0                   | -   | -                   | V    |
| V <sub>IL</sub>                           | LOW-level input voltage              | V <sub>CC</sub> = 0.8 V                                                                                 | -                     | -   | 0.30V <sub>CC</sub> | V    |
|                                           |                                      | V <sub>CC</sub> = 0.9 V to 1.95 V                                                                       | -                     | -   | 0.35V <sub>CC</sub> | V    |
|                                           |                                      | V <sub>CC</sub> = 2.3 V to 2.7 V                                                                        | -                     | -   | 0.7                 | V    |
|                                           |                                      | V <sub>CC</sub> = 3.0 V to 3.6 V                                                                        | -                     | -   | 0.9                 | V    |
| V <sub>OH</sub>                           | HIGH-level output voltage            | V <sub>I</sub> = V <sub>IH</sub> or V <sub>IL</sub>                                                     |                       |     |                     |      |
|                                           |                                      | I <sub>O</sub> = -20 µA; V <sub>CC</sub> = 0.8 V to 3.6 V                                               | V <sub>CC</sub> - 0.1 | -   | -                   | V    |
|                                           |                                      | I <sub>O</sub> = -1.1 mA; V <sub>CC</sub> = 1.1 V                                                       | 0.7V <sub>CC</sub>    | -   | -                   | V    |
|                                           |                                      | I <sub>O</sub> = -1.7 mA; V <sub>CC</sub> = 1.4 V                                                       | 1.03                  | -   | -                   | V    |
|                                           |                                      | I <sub>O</sub> = -1.9 mA; V <sub>CC</sub> = 1.65 V                                                      | 1.30                  | -   | -                   | V    |
|                                           |                                      | I <sub>O</sub> = -2.3 mA; V <sub>CC</sub> = 2.3 V                                                       | 1.97                  | -   | -                   | V    |
|                                           |                                      | I <sub>O</sub> = -3.1 mA; V <sub>CC</sub> = 2.3 V                                                       | 1.85                  | -   | -                   | V    |
|                                           |                                      | I <sub>O</sub> = -2.7 mA; V <sub>CC</sub> = 3.0 V                                                       | 2.67                  | -   | -                   | V    |
|                                           |                                      | I <sub>O</sub> = -4.0 mA; V <sub>CC</sub> = 3.0 V                                                       | 2.55                  | -   | -                   | V    |
| V <sub>OL</sub>                           | LOW-level output voltage             | V <sub>I</sub> = V <sub>IH</sub> or V <sub>IL</sub>                                                     |                       |     |                     |      |
|                                           |                                      | I <sub>O</sub> = 20 µA; V <sub>CC</sub> = 0.8 V to 3.6 V                                                | -                     | -   | 0.1                 | V    |
|                                           |                                      | I <sub>O</sub> = 1.1 mA; V <sub>CC</sub> = 1.1 V                                                        | -                     | -   | 0.3V <sub>CC</sub>  | V    |
|                                           |                                      | I <sub>O</sub> = 1.7 mA; V <sub>CC</sub> = 1.4 V                                                        | -                     | -   | 0.37                | V    |
|                                           |                                      | I <sub>O</sub> = 1.9 mA; V <sub>CC</sub> = 1.65 V                                                       | -                     | -   | 0.35                | V    |
|                                           |                                      | I <sub>O</sub> = 2.3 mA; V <sub>CC</sub> = 2.3 V                                                        | -                     | -   | 0.33                | V    |
|                                           |                                      | I <sub>O</sub> = 3.1 mA; V <sub>CC</sub> = 2.3 V                                                        | -                     | -   | 0.45                | V    |
|                                           |                                      | I <sub>O</sub> = 2.7 mA; V <sub>CC</sub> = 3.0 V                                                        | -                     | -   | 0.33                | V    |
|                                           |                                      | I <sub>O</sub> = 4.0 mA; V <sub>CC</sub> = 3.0 V                                                        | -                     | -   | 0.45                | V    |
| I <sub>I</sub>                            | input leakage current                | V <sub>I</sub> = GND to 3.6 V; V <sub>CC</sub> = 0 V to 3.6 V                                           | -                     | -   | ±0.5                | µA   |
| I <sub>OFF</sub>                          | power-off leakage current            | V <sub>I</sub> or V <sub>O</sub> = 0 V to 3.6 V; V <sub>CC</sub> = 0 V                                  | -                     | -   | ±0.5                | µA   |
| ΔI <sub>OFF</sub>                         | additional power-off leakage current | V <sub>I</sub> or V <sub>O</sub> = 0 V to 3.6 V; V <sub>CC</sub> = 0 V to 0.2 V                         | -                     | -   | ±0.6                | µA   |
| I <sub>CC</sub>                           | supply current                       | V <sub>I</sub> = GND or V <sub>CC</sub> ; I <sub>O</sub> = 0 A;<br>V <sub>CC</sub> = 0.8 V to 3.6 V     | -                     | -   | 0.9                 | µA   |
| ΔI <sub>CC</sub>                          | additional supply current            | per pin; V <sub>I</sub> = V <sub>CC</sub> - 0.6 V; I <sub>O</sub> = 0 A;<br>V <sub>CC</sub> = 3.3 V [1] | -                     | -   | 50                  | µA   |

## Low-power dual D-type flip-flop; positive-edge trigger

| Symbol                                     | Parameter                            | Conditions                                                                                              | Min                    | Typ | Max                 | Unit |
|--------------------------------------------|--------------------------------------|---------------------------------------------------------------------------------------------------------|------------------------|-----|---------------------|------|
| <b>T<sub>amb</sub> = -40 °C to +125 °C</b> |                                      |                                                                                                         |                        |     |                     |      |
| V <sub>IH</sub>                            | HIGH-level input voltage             | V <sub>CC</sub> = 0.8 V                                                                                 | 0.75V <sub>CC</sub>    | -   | -                   | V    |
|                                            |                                      | V <sub>CC</sub> = 0.9 V to 1.95 V                                                                       | 0.70V <sub>CC</sub>    | -   | -                   | V    |
|                                            |                                      | V <sub>CC</sub> = 2.3 V to 2.7 V                                                                        | 1.6                    | -   | -                   | V    |
|                                            |                                      | V <sub>CC</sub> = 3.0 V to 3.6 V                                                                        | 2.0                    | -   | -                   | V    |
| V <sub>IL</sub>                            | LOW-level input voltage              | V <sub>CC</sub> = 0.8 V                                                                                 | -                      | -   | 0.25V <sub>CC</sub> | V    |
|                                            |                                      | V <sub>CC</sub> = 0.9 V to 1.95 V                                                                       | -                      | -   | 0.30V <sub>CC</sub> | V    |
|                                            |                                      | V <sub>CC</sub> = 2.3 V to 2.7 V                                                                        | -                      | -   | 0.7                 | V    |
|                                            |                                      | V <sub>CC</sub> = 3.0 V to 3.6 V                                                                        | -                      | -   | 0.9                 | V    |
| V <sub>OH</sub>                            | HIGH-level output voltage            | V <sub>I</sub> = V <sub>IH</sub> or V <sub>IL</sub>                                                     |                        |     |                     |      |
|                                            |                                      | I <sub>O</sub> = -20 µA; V <sub>CC</sub> = 0.8 V to 3.6 V                                               | V <sub>CC</sub> - 0.11 | -   | -                   | V    |
|                                            |                                      | I <sub>O</sub> = -1.1 mA; V <sub>CC</sub> = 1.1 V                                                       | 0.6V <sub>CC</sub>     | -   | -                   | V    |
|                                            |                                      | I <sub>O</sub> = -1.7 mA; V <sub>CC</sub> = 1.4 V                                                       | 0.93                   | -   | -                   | V    |
|                                            |                                      | I <sub>O</sub> = -1.9 mA; V <sub>CC</sub> = 1.65 V                                                      | 1.17                   | -   | -                   | V    |
|                                            |                                      | I <sub>O</sub> = -2.3 mA; V <sub>CC</sub> = 2.3 V                                                       | 1.77                   | -   | -                   | V    |
|                                            |                                      | I <sub>O</sub> = -3.1 mA; V <sub>CC</sub> = 2.3 V                                                       | 1.67                   | -   | -                   | V    |
|                                            |                                      | I <sub>O</sub> = -2.7 mA; V <sub>CC</sub> = 3.0 V                                                       | 2.40                   | -   | -                   | V    |
|                                            |                                      | I <sub>O</sub> = -4.0 mA; V <sub>CC</sub> = 3.0 V                                                       | 2.30                   | -   | -                   | V    |
| V <sub>OL</sub>                            | LOW-level output voltage             | V <sub>I</sub> = V <sub>IH</sub> or V <sub>IL</sub>                                                     |                        |     |                     |      |
|                                            |                                      | I <sub>O</sub> = 20 µA; V <sub>CC</sub> = 0.8 V to 3.6 V                                                | -                      | -   | 0.11                | V    |
|                                            |                                      | I <sub>O</sub> = 1.1 mA; V <sub>CC</sub> = 1.1 V                                                        | -                      | -   | 0.33V <sub>CC</sub> | V    |
|                                            |                                      | I <sub>O</sub> = 1.7 mA; V <sub>CC</sub> = 1.4 V                                                        | -                      | -   | 0.41                | V    |
|                                            |                                      | I <sub>O</sub> = 1.9 mA; V <sub>CC</sub> = 1.65 V                                                       | -                      | -   | 0.39                | V    |
|                                            |                                      | I <sub>O</sub> = 2.3 mA; V <sub>CC</sub> = 2.3 V                                                        | -                      | -   | 0.36                | V    |
|                                            |                                      | I <sub>O</sub> = 3.1 mA; V <sub>CC</sub> = 2.3 V                                                        | -                      | -   | 0.50                | V    |
|                                            |                                      | I <sub>O</sub> = 2.7 mA; V <sub>CC</sub> = 3.0 V                                                        | -                      | -   | 0.36                | V    |
|                                            |                                      | I <sub>O</sub> = 4.0 mA; V <sub>CC</sub> = 3.0 V                                                        | -                      | -   | 0.50                | V    |
| I <sub>I</sub>                             | input leakage current                | V <sub>I</sub> = GND to 3.6 V; V <sub>CC</sub> = 0 V to 3.6 V                                           | -                      | -   | ±0.75               | µA   |
| I <sub>OFF</sub>                           | power-off leakage current            | V <sub>I</sub> or V <sub>O</sub> = 0 V to 3.6 V; V <sub>CC</sub> = 0 V                                  | -                      | -   | ±0.75               | µA   |
| ΔI <sub>OFF</sub>                          | additional power-off leakage current | V <sub>I</sub> or V <sub>O</sub> = 0 V to 3.6 V; V <sub>CC</sub> = 0 V to 0.2 V                         | -                      | -   | ±0.75               | µA   |
| I <sub>CC</sub>                            | supply current                       | V <sub>I</sub> = GND or V <sub>CC</sub> ; I <sub>O</sub> = 0 A;<br>V <sub>CC</sub> = 0.8 V to 3.6 V     | -                      | -   | 1.4                 | µA   |
| ΔI <sub>CC</sub>                           | additional supply current            | per pin; V <sub>I</sub> = V <sub>CC</sub> - 0.6 V; I <sub>O</sub> = 0 A;<br>V <sub>CC</sub> = 3.3 V [1] | -                      | -   | 75                  | µA   |

[1] One input at V<sub>CC</sub> - 0.6 V, other input at V<sub>CC</sub> or GND.

## 11. Dynamic characteristics

**Table 8. Dynamic characteristics**

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

| Symbol                 | Parameter         | Conditions                                | T <sub>amb</sub> = 25 °C |        |      | T <sub>amb</sub> = -40 °C to +85 °C |      | T <sub>amb</sub> = -40 °C to +125 °C |      | Unit |
|------------------------|-------------------|-------------------------------------------|--------------------------|--------|------|-------------------------------------|------|--------------------------------------|------|------|
|                        |                   |                                           | Min                      | Typ[1] | Max  | Min                                 | Max  | Min                                  | Max  |      |
| C <sub>L</sub> = 5 pF  |                   |                                           |                          |        |      |                                     |      |                                      |      |      |
| t <sub>pd</sub>        | propagation delay | nCP to nQ; see <a href="#">Fig. 6</a> [2] |                          |        |      |                                     |      |                                      |      |      |
|                        |                   | V <sub>CC</sub> = 0.8 V                   | -                        | 19.7   | -    | -                                   | -    | -                                    | -    | ns   |
|                        |                   | V <sub>CC</sub> = 1.1 V to 1.3 V          | 2.6                      | 5.5    | 11.0 | 2.4                                 | 12.9 | 2.4                                  | 14.2 | ns   |
|                        |                   | V <sub>CC</sub> = 1.4 V to 1.6 V          | 2.0                      | 3.8    | 7.0  | 1.8                                 | 8.1  | 1.8                                  | 9.0  | ns   |
|                        |                   | V <sub>CC</sub> = 1.65 V to 1.95 V        | 1.7                      | 3.1    | 5.4  | 1.5                                 | 6.4  | 1.5                                  | 7.1  | ns   |
|                        |                   | V <sub>CC</sub> = 2.3 V to 2.7 V          | 1.4                      | 2.3    | 4.0  | 1.1                                 | 4.7  | 1.1                                  | 5.2  | ns   |
|                        |                   | V <sub>CC</sub> = 3.0 V to 3.6 V          | 1.2                      | 2.0    | 3.4  | 0.9                                 | 4.0  | 0.9                                  | 4.4  | ns   |
| f <sub>max</sub>       | maximum frequency | nCP; see <a href="#">Fig. 7</a>           |                          |        |      |                                     |      |                                      |      |      |
|                        |                   | V <sub>CC</sub> = 0.8 V                   | -                        | 53     | -    | -                                   | -    | -                                    | -    | MHz  |
|                        |                   | V <sub>CC</sub> = 1.1 V to 1.3 V          | -                        | 203    | -    | 170                                 | -    | 170                                  | -    | MHz  |
|                        |                   | V <sub>CC</sub> = 1.4 V to 1.6 V          | -                        | 347    | -    | 310                                 | -    | 300                                  | -    | MHz  |
|                        |                   | V <sub>CC</sub> = 1.65 V to 1.95 V        | -                        | 435    | -    | 400                                 | -    | 390                                  | -    | MHz  |
|                        |                   | V <sub>CC</sub> = 2.3 V to 2.7 V          | -                        | 550    | -    | 490                                 | -    | 480                                  | -    | MHz  |
|                        |                   | V <sub>CC</sub> = 3.0 V to 3.6 V          | -                        | 619    | -    | 550                                 | -    | 510                                  | -    | MHz  |
| C <sub>L</sub> = 10 pF |                   |                                           |                          |        |      |                                     |      |                                      |      |      |
| t <sub>pd</sub>        | propagation delay | nCP to nQ; see <a href="#">Fig. 6</a> [2] |                          |        |      |                                     |      |                                      |      |      |
|                        |                   | V <sub>CC</sub> = 0.8 V                   | -                        | 23.1   | -    | -                                   | -    | -                                    | -    | ns   |
|                        |                   | V <sub>CC</sub> = 1.1 V to 1.3 V          | 3.1                      | 6.3    | 12.3 | 2.8                                 | 14.4 | 2.8                                  | 15.9 | ns   |
|                        |                   | V <sub>CC</sub> = 1.4 V to 1.6 V          | 2.5                      | 4.4    | 8.1  | 2.2                                 | 9.5  | 2.2                                  | 10.5 | ns   |
|                        |                   | V <sub>CC</sub> = 1.65 V to 1.95 V        | 2.1                      | 3.6    | 6.3  | 1.9                                 | 7.5  | 1.9                                  | 8.3  | ns   |
|                        |                   | V <sub>CC</sub> = 2.3 V to 2.7 V          | 1.8                      | 2.8    | 4.7  | 1.5                                 | 5.6  | 1.5                                  | 6.2  | ns   |
|                        |                   | V <sub>CC</sub> = 3.0 V to 3.6 V          | 1.7                      | 2.5    | 4.1  | 1.3                                 | 4.5  | 1.3                                  | 5.0  | ns   |
| f <sub>max</sub>       | maximum frequency | nCP; see <a href="#">Fig. 7</a>           |                          |        |      |                                     |      |                                      |      |      |
|                        |                   | V <sub>CC</sub> = 0.8 V                   | -                        | 52     | -    | -                                   | -    | -                                    | -    | MHz  |
|                        |                   | V <sub>CC</sub> = 1.1 V to 1.3 V          | -                        | 192    | -    | 150                                 | -    | 150                                  | -    | MHz  |
|                        |                   | V <sub>CC</sub> = 1.4 V to 1.6 V          | -                        | 324    | -    | 280                                 | -    | 230                                  | -    | MHz  |
|                        |                   | V <sub>CC</sub> = 1.65 V to 1.95 V        | -                        | 421    | -    | 310                                 | -    | 250                                  | -    | MHz  |
|                        |                   | V <sub>CC</sub> = 2.3 V to 2.7 V          | -                        | 486    | -    | 370                                 | -    | 360                                  | -    | MHz  |
|                        |                   | V <sub>CC</sub> = 3.0 V to 3.6 V          | -                        | 550    | -    | 410                                 | -    | 360                                  | -    | MHz  |
| C <sub>L</sub> = 15 pF |                   |                                           |                          |        |      |                                     |      |                                      |      |      |
| t <sub>pd</sub>        | propagation delay | nCP to nQ; see <a href="#">Fig. 6</a> [2] |                          |        |      |                                     |      |                                      |      |      |
|                        |                   | V <sub>CC</sub> = 0.8 V                   | -                        | 26.6   | -    | -                                   | -    | -                                    | -    | ns   |
|                        |                   | V <sub>CC</sub> = 1.1 V to 1.3 V          | 3.5                      | 7.1    | 13.6 | 3.2                                 | 15.6 | 3.2                                  | 17.2 | ns   |
|                        |                   | V <sub>CC</sub> = 1.4 V to 1.6 V          | 2.8                      | 5.0    | 9.2  | 2.5                                 | 10.7 | 2.5                                  | 11.8 | ns   |
|                        |                   | V <sub>CC</sub> = 1.65 V to 1.95 V        | 2.4                      | 4.1    | 7.1  | 2.2                                 | 8.5  | 2.2                                  | 9.4  | ns   |
|                        |                   | V <sub>CC</sub> = 2.3 V to 2.7 V          | 2.2                      | 3.2    | 5.4  | 1.9                                 | 6.3  | 1.9                                  | 7.0  | ns   |
|                        |                   | V <sub>CC</sub> = 3.0 V to 3.6 V          | 2.0                      | 2.9    | 4.5  | 1.6                                 | 5.0  | 1.6                                  | 5.5  | ns   |

## Low-power dual D-type flip-flop; positive-edge trigger

| Symbol                                        | Parameter         | Conditions                                  | T <sub>amb</sub> = 25 °C |        |      | T <sub>amb</sub> = -40 °C to +85 °C |      | T <sub>amb</sub> = -40 °C to +125 °C |      | Unit |
|-----------------------------------------------|-------------------|---------------------------------------------|--------------------------|--------|------|-------------------------------------|------|--------------------------------------|------|------|
|                                               |                   |                                             | Min                      | Typ[1] | Max  | Min                                 | Max  | Min                                  | Max  |      |
| f <sub>max</sub>                              | maximum frequency | nCP; see <a href="#">Fig. 7</a>             |                          |        |      |                                     |      |                                      |      |      |
|                                               |                   | V <sub>CC</sub> = 0.8 V                     | -                        | 50     | -    | -                                   | -    | -                                    | -    | MHz  |
|                                               |                   | V <sub>CC</sub> = 1.1 V to 1.3 V            | -                        | 181    | -    | 120                                 | -    | 120                                  | -    | MHz  |
|                                               |                   | V <sub>CC</sub> = 1.4 V to 1.6 V            | -                        | 301    | -    | 190                                 | -    | 160                                  | -    | MHz  |
|                                               |                   | V <sub>CC</sub> = 1.65 V to 1.95 V          | -                        | 407    | -    | 240                                 | -    | 190                                  | -    | MHz  |
|                                               |                   | V <sub>CC</sub> = 2.3 V to 2.7 V            | -                        | 422    | -    | 300                                 | -    | 270                                  | -    | MHz  |
|                                               |                   | V <sub>CC</sub> = 3.0 V to 3.6 V            | -                        | 481    | -    | 320                                 | -    | 300                                  | -    | MHz  |
| C <sub>L</sub> = 30 pF                        |                   |                                             |                          |        |      |                                     |      |                                      |      |      |
| t <sub>pd</sub>                               | propagation delay | nCP to nQ; see <a href="#">Fig. 6</a> [2]   |                          |        |      |                                     |      |                                      |      |      |
|                                               |                   | V <sub>CC</sub> = 0.8 V                     | -                        | 36.8   | -    | -                                   | -    | -                                    | -    | ns   |
|                                               |                   | V <sub>CC</sub> = 1.1 V to 1.3 V            | 4.7                      | 9.3    | 17.3 | 4.2                                 | 23.3 | 4.2                                  | 25.6 | ns   |
|                                               |                   | V <sub>CC</sub> = 1.4 V to 1.6 V            | 3.8                      | 6.4    | 11.8 | 3.3                                 | 14.3 | 3.3                                  | 15.7 | ns   |
|                                               |                   | V <sub>CC</sub> = 1.65 V to 1.95 V          | 3.3                      | 5.3    | 9.4  | 3.0                                 | 11.3 | 3.0                                  | 12.4 | ns   |
|                                               |                   | V <sub>CC</sub> = 2.3 V to 2.7 V            | 3.0                      | 4.3    | 7.0  | 2.7                                 | 8.5  | 2.7                                  | 9.4  | ns   |
|                                               |                   | V <sub>CC</sub> = 3.0 V to 3.6 V            | 2.8                      | 3.9    | 5.8  | 2.6                                 | 7.2  | 2.6                                  | 7.9  | ns   |
| f <sub>max</sub>                              | maximum frequency | nCP; see <a href="#">Fig. 7</a>             |                          |        |      |                                     |      |                                      |      |      |
|                                               |                   | V <sub>CC</sub> = 0.8 V                     | -                        | 28     | -    | -                                   | -    | -                                    | -    | MHz  |
|                                               |                   | V <sub>CC</sub> = 1.1 V to 1.3 V            | -                        | 128    | -    | 70                                  | -    | 70                                   | -    | MHz  |
|                                               |                   | V <sub>CC</sub> = 1.4 V to 1.6 V            | -                        | 206    | -    | 120                                 | -    | 110                                  | -    | MHz  |
|                                               |                   | V <sub>CC</sub> = 1.65 V to 1.95 V          | -                        | 262    | -    | 150                                 | -    | 120                                  | -    | MHz  |
|                                               |                   | V <sub>CC</sub> = 2.3 V to 2.7 V            | -                        | 269    | -    | 190                                 | -    | 170                                  | -    | MHz  |
|                                               |                   | V <sub>CC</sub> = 3.0 V to 3.6 V            | -                        | 309    | -    | 200                                 | -    | 190                                  | -    | MHz  |
| C <sub>L</sub> = 5 pF, 10 pF, 15 pF and 30 pF |                   |                                             |                          |        |      |                                     |      |                                      |      |      |
| t <sub>su</sub>                               | set-up time       | HIGH; nD to nCP; see <a href="#">Fig. 7</a> |                          |        |      |                                     |      |                                      |      |      |
|                                               |                   | V <sub>CC</sub> = 0.8 V                     | -                        | 3.4    | -    | -                                   | -    | -                                    | -    | ns   |
|                                               |                   | V <sub>CC</sub> = 1.1 V to 1.3 V            | -                        | 0.8    | -    | 1.5                                 | -    | 1.5                                  | -    | ns   |
|                                               |                   | V <sub>CC</sub> = 1.4 V to 1.6 V            | -                        | 0.5    | -    | 1.0                                 | -    | 1.0                                  | -    | ns   |
|                                               |                   | V <sub>CC</sub> = 1.65 V to 1.95 V          | -                        | 0.5    | -    | 0.9                                 | -    | 0.9                                  | -    | ns   |
|                                               |                   | V <sub>CC</sub> = 2.3 V to 2.7 V            | -                        | 0.4    | -    | 0.7                                 | -    | 0.7                                  | -    | ns   |
|                                               |                   | V <sub>CC</sub> = 3.0 V to 3.6 V            | -                        | 0.4    | -    | 0.6                                 | -    | 0.6                                  | -    | ns   |
|                                               |                   | LOW; nD to nCP; see <a href="#">Fig. 7</a>  |                          |        |      |                                     |      |                                      |      |      |
|                                               |                   | V <sub>CC</sub> = 0.8 V                     | -                        | 3.0    | -    | -                                   | -    | -                                    | -    | ns   |
|                                               |                   | V <sub>CC</sub> = 1.1 V to 1.3 V            | -                        | 0.9    | -    | 1.6                                 | -    | 1.6                                  | -    | ns   |
|                                               |                   | V <sub>CC</sub> = 1.4 V to 1.6 V            | -                        | 0.6    | -    | 1.0                                 | -    | 1.0                                  | -    | ns   |
|                                               |                   | V <sub>CC</sub> = 1.65 V to 1.95 V          | -                        | 0.5    | -    | 0.9                                 | -    | 0.9                                  | -    | ns   |
|                                               |                   | V <sub>CC</sub> = 2.3 V to 2.7 V            | -                        | 0.5    | -    | 0.9                                 | -    | 0.9                                  | -    | ns   |
|                                               |                   | V <sub>CC</sub> = 3.0 V to 3.6 V            | -                        | 0.7    | -    | 1.0                                 | -    | 1.0                                  | -    | ns   |

## Low-power dual D-type flip-flop; positive-edge trigger

| Symbol          | Parameter                     | Conditions                                             | T <sub>amb</sub> = 25 °C |        |     | T <sub>amb</sub> = -40 °C to +85 °C |     | T <sub>amb</sub> = -40 °C to +125 °C |     | Unit |
|-----------------|-------------------------------|--------------------------------------------------------|--------------------------|--------|-----|-------------------------------------|-----|--------------------------------------|-----|------|
|                 |                               |                                                        | Min                      | Typ[1] | Max | Min                                 | Max | Min                                  | Max |      |
| t <sub>h</sub>  | hold time                     | nD to nCP; see Fig. 7                                  |                          |        |     |                                     |     |                                      |     |      |
|                 |                               | V <sub>CC</sub> = 0.8 V                                | -                        | -1.9   | -   | -                                   | -   | -                                    | -   | ns   |
|                 |                               | V <sub>CC</sub> = 1.1 V to 1.3 V                       | -                        | -0.6   | -   | 0                                   | -   | 0                                    | -   | ns   |
|                 |                               | V <sub>CC</sub> = 1.4 V to 1.6 V                       | -                        | -0.4   | -   | 0                                   | -   | 0                                    | -   | ns   |
|                 |                               | V <sub>CC</sub> = 1.65 V to 1.95 V                     | -                        | -0.4   | -   | 0                                   | -   | 0                                    | -   | ns   |
|                 |                               | V <sub>CC</sub> = 2.3 V to 2.7 V                       | -                        | -0.4   | -   | 0                                   | -   | 0                                    | -   | ns   |
|                 |                               | V <sub>CC</sub> = 3.0 V to 3.6 V                       | -                        | -0.3   | -   | 0                                   | -   | 0                                    | -   | ns   |
| t <sub>w</sub>  | pulse width                   | HIGH or LOW; nCP;<br>see Fig. 7                        |                          |        |     |                                     |     |                                      |     |      |
|                 |                               | V <sub>CC</sub> = 0.8 V                                | -                        | 5.6    | -   | -                                   | -   | -                                    | -   | ns   |
|                 |                               | V <sub>CC</sub> = 1.1 V to 1.3 V                       | -                        | 2.4    | -   | 3.5                                 | -   | 3.5                                  | -   | ns   |
|                 |                               | V <sub>CC</sub> = 1.4 V to 1.6 V                       | -                        | 1.3    | -   | 2.0                                 | -   | 2.0                                  | -   | ns   |
|                 |                               | V <sub>CC</sub> = 1.65 V to 1.95 V                     | -                        | 0.9    | -   | 1.9                                 | -   | 1.9                                  | -   | ns   |
|                 |                               | V <sub>CC</sub> = 2.3 V to 2.7 V                       | -                        | 0.7    | -   | 2.0                                 | -   | 2.0                                  | -   | ns   |
|                 |                               | V <sub>CC</sub> = 3.0 V to 3.6 V                       | -                        | 0.6    | -   | 2.2                                 | -   | 2.2                                  | -   | ns   |
| C <sub>PD</sub> | power dissipation capacitance | f = 1 MHz; V <sub>I</sub> = GND to V <sub>CC</sub> [3] |                          |        |     |                                     |     |                                      |     |      |
|                 |                               | V <sub>CC</sub> = 0.8 V                                | -                        | 1.6    | -   | -                                   | -   | -                                    | -   | pF   |
|                 |                               | V <sub>CC</sub> = 1.1 V to 1.3 V                       | -                        | 1.7    | -   | -                                   | -   | -                                    | -   | pF   |
|                 |                               | V <sub>CC</sub> = 1.4 V to 1.6 V                       | -                        | 1.8    | -   | -                                   | -   | -                                    | -   | pF   |
|                 |                               | V <sub>CC</sub> = 1.65 V to 1.95 V                     | -                        | 1.9    | -   | -                                   | -   | -                                    | -   | pF   |
|                 |                               | V <sub>CC</sub> = 2.3 V to 2.7 V                       | -                        | 2.3    | -   | -                                   | -   | -                                    | -   | pF   |
|                 |                               | V <sub>CC</sub> = 3.0 V to 3.6 V                       | -                        | 2.7    | -   | -                                   | -   | -                                    | -   | pF   |

[1] All typical values are measured at nominal V<sub>CC</sub>.

[2] t<sub>pd</sub> is the same as t<sub>PLH</sub> and t<sub>PHL</sub>.

[3] C<sub>PD</sub> is used to determine the dynamic power dissipation (P<sub>D</sub> 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<sub>i</sub> = input frequency in MHz;

f<sub>o</sub> = output frequency in MHz;

C<sub>L</sub> = output load capacitance in pF;

V<sub>CC</sub> = supply voltage in V;

N = number of inputs switching;

$\Sigma(C_L \times V_{CC}^2 \times f_o)$  = sum of the outputs.

11.1. Waveforms and test circuit

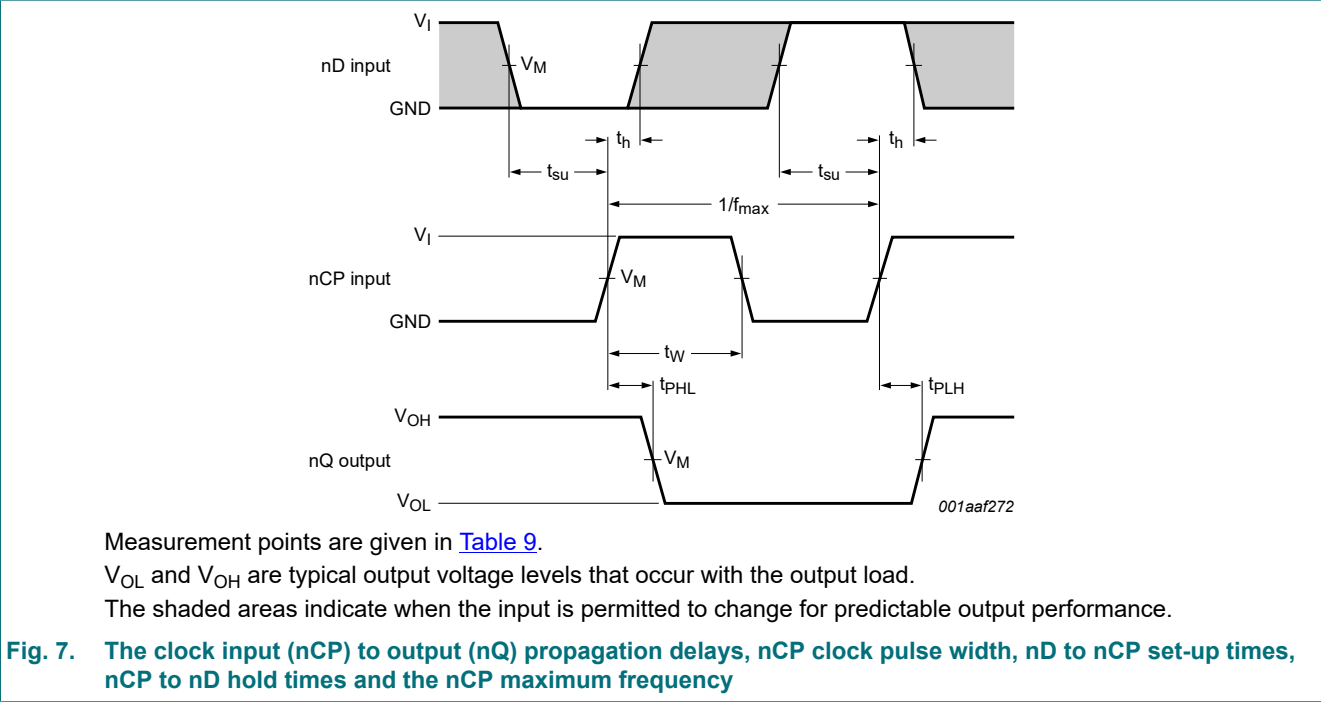
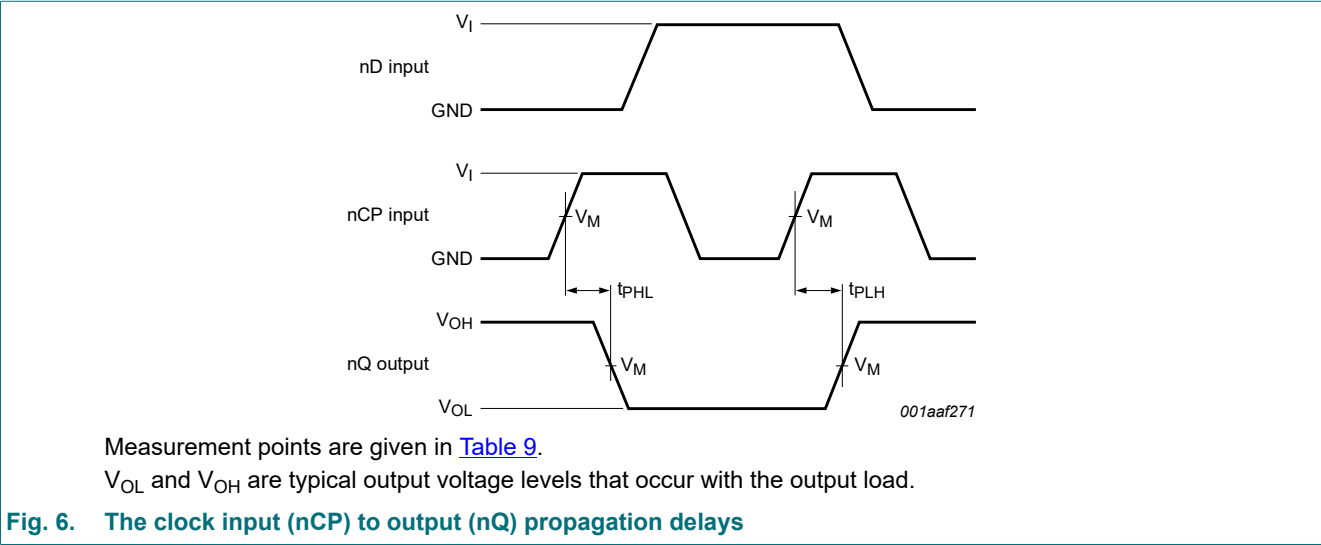
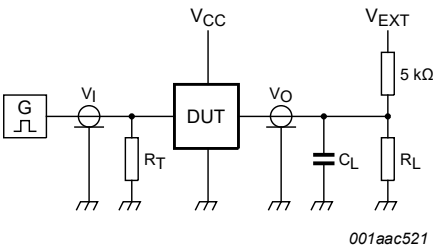


Table 9. Measurement points

| Supply voltage | Output              | Input               |          |                       |
|----------------|---------------------|---------------------|----------|-----------------------|
| $V_{CC}$       | $V_M$               | $V_M$               | $V_I$    | $t_r = t_f$           |
| 0.8 V to 3.6 V | $0.5 \times V_{CC}$ | $0.5 \times V_{CC}$ | $V_{CC}$ | $\leq 3.0 \text{ ns}$ |



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 the output impedance  $Z_o$  of the pulse generator.  
 $V_{EXT}$  = External voltage for measuring switching times.

Fig. 8. Test circuit for measuring switching times

Table 10. Test data

| Supply voltage |                              | Load         |                    | $V_{EXT}$          |                    |
|----------------|------------------------------|--------------|--------------------|--------------------|--------------------|
| $V_{CC}$       | $C_L$                        | $R_L$ [1]    | $t_{PLH}, t_{PHL}$ | $t_{PZH}, t_{PHZ}$ | $t_{PZL}, t_{PLZ}$ |
| 0.8 V to 3.6 V | 5 pF, 10 pF, 15 pF and 30 pF | 5 kΩ or 1 MΩ | open               | GND                | $2 \times V_{CC}$  |

[1] For measuring enable and disable times  $R_L = 5\text{ k}\Omega$ .  
For measuring propagation delays, set-up and hold times and pulse width  $R_L = 1\text{ M}\Omega$ .

12. Package outline

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

SOT765-1

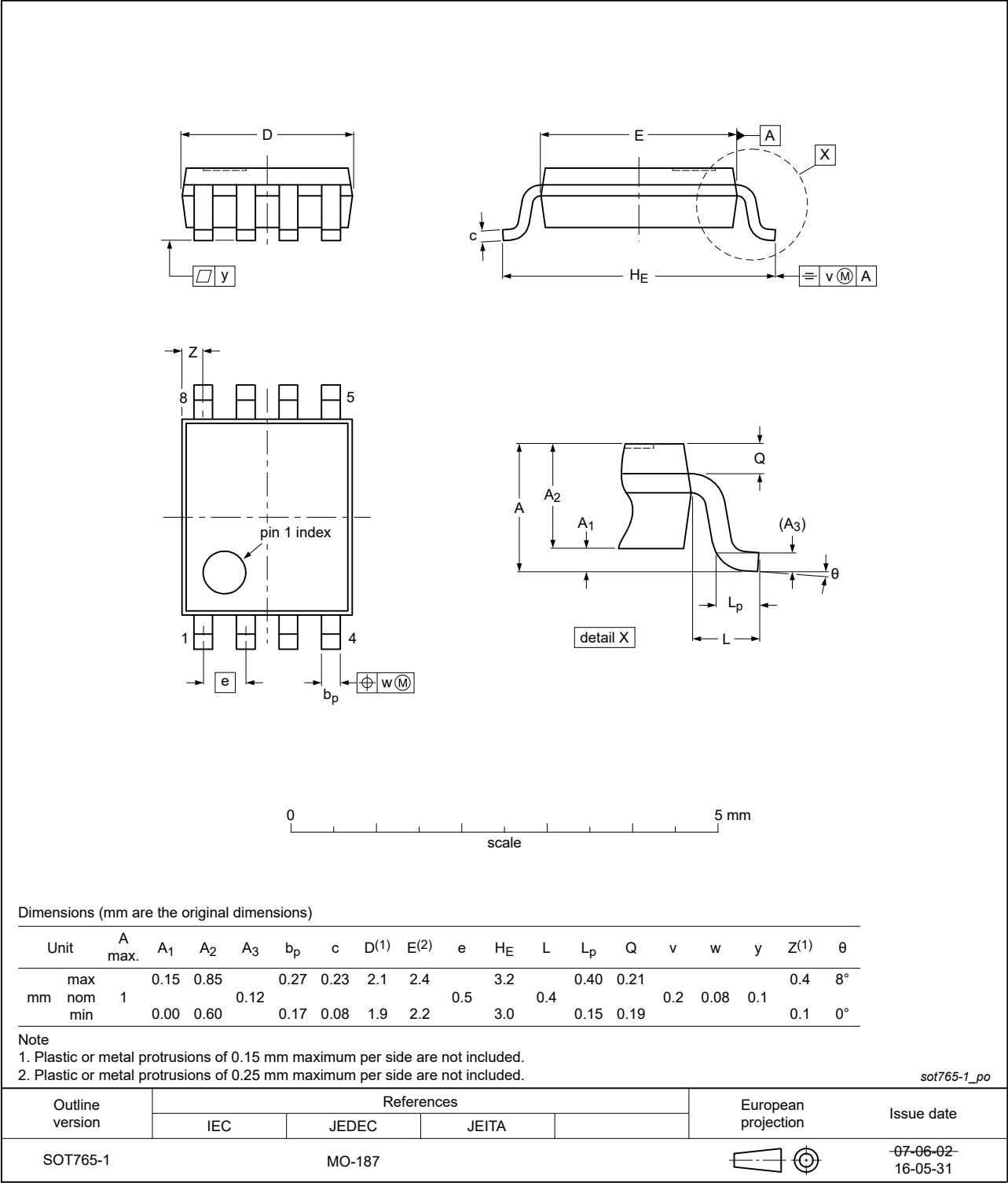


Fig. 9. Package outline SOT765-1 (VSSOP8)

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

SOT833-1

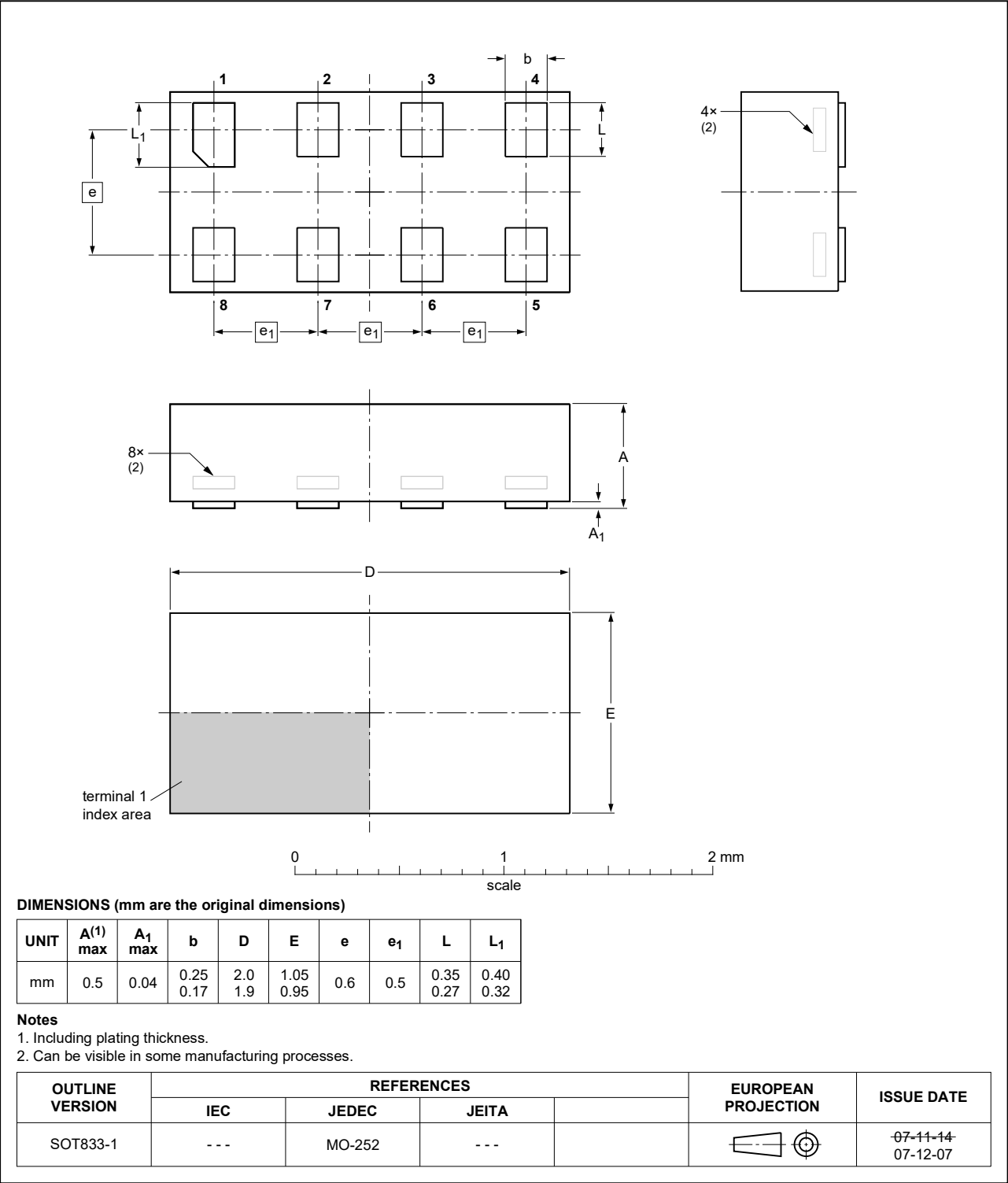


Fig. 10. Package outline SOT833-1 (XSON8)

XSON8: extremely thin small outline package; no leads;  
8 terminals; body 1.2 x 1.0 x 0.35 mm

SOT1116

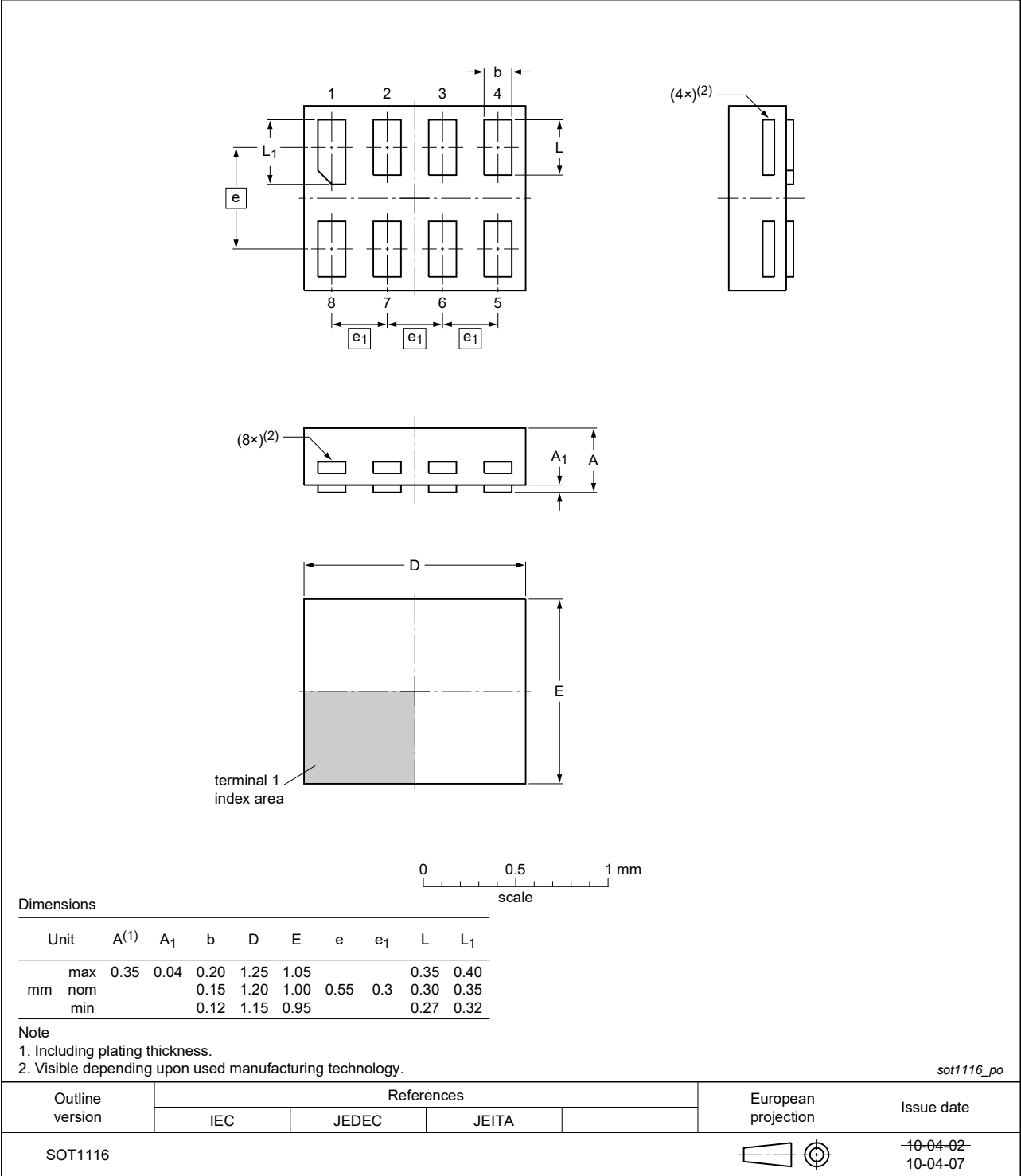


Fig. 11. Package outline SOT1116 (XSON8)

XSON8: extremely thin small outline package; no leads;  
8 terminals; body 1.35 x 1.0 x 0.35 mm

SOT1203

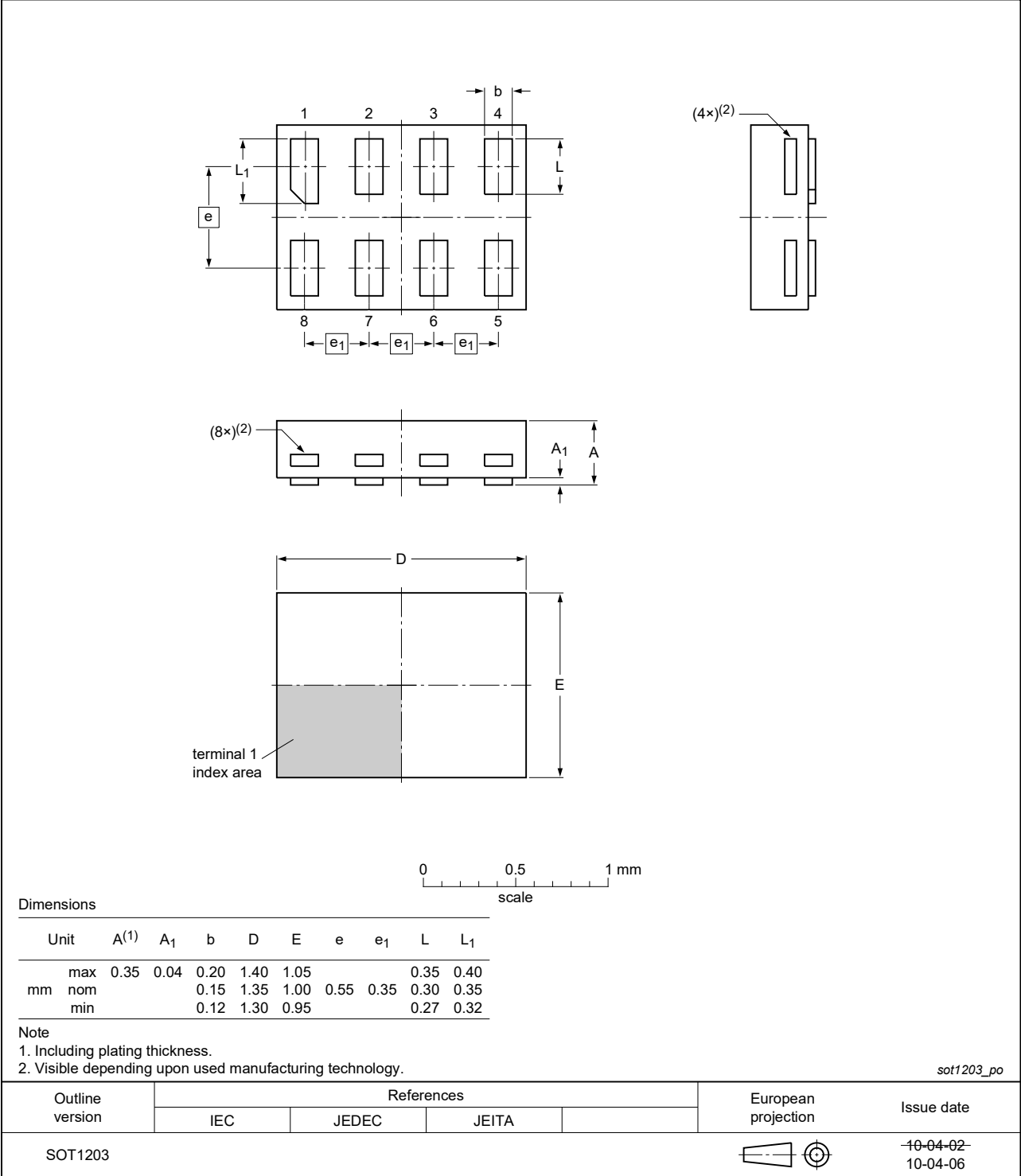


Fig. 12. Package outline SOT1203 (XSON8)

## 13. Abbreviations

Table 11. Abbreviations

| Acronym | Description             |
|---------|-------------------------|
| CDM     | Charged Device Model    |
| DUT     | Device Under Test       |
| ESD     | ElectroStatic Discharge |
| HBM     | Human Body Model        |

## 14. Revision history

Table 12. Revision history

| Document ID    | Release date                                                                                                                                                                                                                                                                                                                                                                                                          | Data sheet status  | Change notice | Supersedes     |
|----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|---------------|----------------|
| 74AUP2G79 v.12 | 20230718                                                                                                                                                                                                                                                                                                                                                                                                              | Product data sheet | -             | 74AUP2G79 v.11 |
| Modifications: | <ul style="list-style-type: none"> <li>Section 2: ESD specification updated according to the latest JEDEC standard.</li> </ul>                                                                                                                                                                                                                                                                                        |                    |               |                |
| 74AUP2G79 v.11 | 20201203                                                                                                                                                                                                                                                                                                                                                                                                              | Product data sheet | -             | 74AUP2G79 v.10 |
| Modifications: | <ul style="list-style-type: none"> <li>Type number 74AUP2G79GF (SOT1089/XSON8) removed.</li> </ul>                                                                                                                                                                                                                                                                                                                    |                    |               |                |
| 74AUP2G79 v.10 | 20190724                                                                                                                                                                                                                                                                                                                                                                                                              | Product data sheet | -             | 74AUP2G79 v.9  |
| Modifications: | <ul style="list-style-type: none"> <li>Type number 74AUP2G79GM (SOT902-2) removed.</li> <li>Table 5: Derating values for <math>P_{tot}</math> total power dissipation updated.</li> </ul>                                                                                                                                                                                                                             |                    |               |                |
| 74AUP2G79 v.9  | 20190327                                                                                                                                                                                                                                                                                                                                                                                                              | Product data sheet | -             | 74AUP2G79 v.8  |
| Modifications: | <ul style="list-style-type: none"> <li>The format of this data sheet has been redesigned to comply with the identity guidelines of Nexperia.</li> <li>Legal texts have been adapted to the new company name where appropriate.</li> <li>Type number 74AUP2G79GD (SOT996-2) removed.</li> <li>Package outline drawing SOT765-1 (VSSOP8) updated.</li> <li>Package outline drawing SOT902-2 (XQFN8) updated.</li> </ul> |                    |               |                |
| 74AUP2G79 v.8  | 20130124                                                                                                                                                                                                                                                                                                                                                                                                              | Product data sheet | -             | 74AUP2G79 v.7  |
| Modifications: | <ul style="list-style-type: none"> <li>For type number 74AUP2G79GD XSON8U has changed to XSON8.</li> </ul>                                                                                                                                                                                                                                                                                                            |                    |               |                |
| 74AUP2G79 v.7  | 20120614                                                                                                                                                                                                                                                                                                                                                                                                              | Product data sheet | -             | 74AUP2G79 v.6  |
| 74AUP2G79 v.6  | 20111208                                                                                                                                                                                                                                                                                                                                                                                                              | Product data sheet | -             | 74AUP2G79 v.5  |
| 74AUP2G79 v.5  | 20100930                                                                                                                                                                                                                                                                                                                                                                                                              | Product data sheet | -             | 74AUP2G79 v.4  |
| 74AUP2G79 v.4  | 20090630                                                                                                                                                                                                                                                                                                                                                                                                              | Product data sheet | -             | 74AUP2G79 v.3  |
| 74AUP2G79 v.3  | 20090401                                                                                                                                                                                                                                                                                                                                                                                                              | Product data sheet | -             | 74AUP2G79 v.2  |
| 74AUP2G79 v.2  | 20080319                                                                                                                                                                                                                                                                                                                                                                                                              | Product data sheet | -             | 74AUP2G79 v.1  |
| 74AUP2G79 v.1  | 20061006                                                                                                                                                                                                                                                                                                                                                                                                              | Product data sheet | -             | -              |

## 15. Legal information

### 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".
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