# **74AUP1G06**

# Low-power inverter with open-drain output Rev. 8 — 12 February 2018

**Product data sheet** 

#### **General description** 1

The 74AUP1G06 provides the single inverting buffer with open-drain output. The output of the device is an open drain and can be connected to other open-drain outputs to implement active-LOW wired-OR or active-HIGH wired-AND functions.

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<sub>CC</sub> range from 0.8 V to 3.6 V.

This device is fully specified for partial Power-down applications using I<sub>OFF</sub>. The I<sub>OFF</sub> circuitry disables the output, preventing the damaging backflow current through the device when it is powered down.

#### **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)
- ESD protection:
  - HBM JESD22-A114F Class 3A exceeds 5000 V
  - MM JESD22-A115-A exceeds 200 V
  - CDM JESD22-C101E exceeds 1000 V
- Low static power consumption; I<sub>CC</sub> = 0.9 μA (maximum)
- Latch-up performance exceeds 100 mA per JESD 78 Class II
- Inputs accept voltages up to 3.6 V
- Low noise overshoot and undershoot < 10 % of V<sub>CC</sub>
- I<sub>OFF</sub> circuitry provides partial Power-down mode operation
- 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					
74AUP1G06GW	-40 °C to +125 °C	TSSOP5	plastic thin shrink small outline package; 5 leads; body width 1.25 mm	SOT353-1					
74AUP1G06GM	-40 °C to +125 °C	XSON6	plastic extremely thin small outline package; no leads; 6 terminals; body 1 × 1.45 × 0.5 mm	SOT886					
74AUP1G06GF	-40 °C to +125 °C	XSON6	plastic extremely thin small outline package; no leads; 6 terminals; body 1 × 1 × 0.5 mm	SOT891					
74AUP1G06GN	-40 °C to +125 °C	XSON6	extremely thin small outline package; no leads; 6 terminals; body 0.9 × 1.0 × 0.35 mm	SOT1115					
74AUP1G06GS	-40 °C to +125 °C	XSON6	extremely thin small outline package; no leads; 6 terminals; body 1.0 × 1.0 × 0.35 mm	SOT1202					
74AUP1G06GX	-40 °C to +125 °C	X2SON5	X2SON5: plastic thermal enhanced extremely thin small outline package; no leads; 5 terminals; body 0.8 × 0.8 × 0.35 mm	SOT1226					

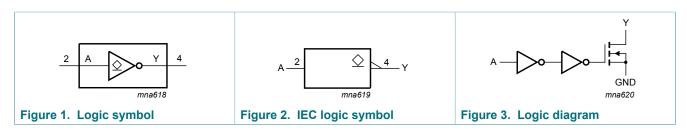
# 4 Marking

Table 2. Marking

Type number	Marking code <sup>[1]</sup>
74AUP1G06GW	pR
74AUP1G06GM	pR
74AUP1G06GF	pR
74AUP1G06GN	pR
74AUP1G06GS	pR
74AUP1G06GX	pR

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

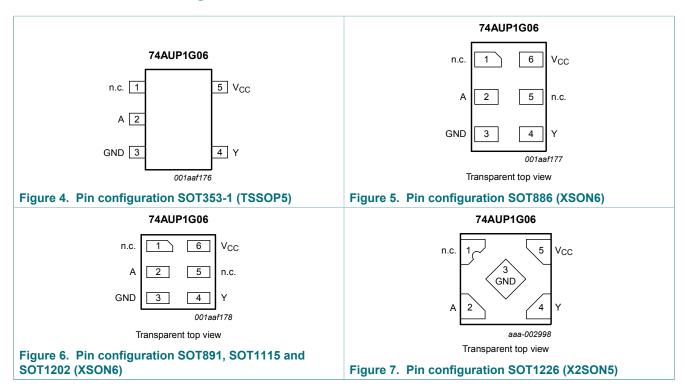
# 5 Functional diagram



Low-power inverter with open-drain output

# 6 Pinning information

### 6.1 Pinning



#### 6.2 Pin description

Table 3. Pin description

Symbol	Pin	Description	
	TSSOP5 and X2SON5	XSON6	
n.c.	1	1	not connected
A	2	2	data input
GND	3	3	ground (0 V)
Υ	4	4	data output
n.c.	-	5	not connected
V <sub>CC</sub>	5	6	supply voltage

# 7 Functional description

Table 4. Function table [1]

Input	Output
A	Υ
L	Z
Н	L

<sup>[1]</sup> H = HIGH voltage level;

# 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
$V_{CC}$	supply voltage			-0.5	+4.6	V
I <sub>IK</sub>	input clamping current	V <sub>I</sub> < 0 V		-50	-	mA
VI	input voltage		[1]	-0.5	+4.6	V
I <sub>OK</sub>	output clamping current	V <sub>O</sub> < 0 V		-50	-	mA
Vo	output voltage	Active mode and Power-down mode	[1]	-0.5	+4.6	V
I <sub>O</sub>	output current	$V_O = 0 V \text{ to } V_{CC}$		-	+20	mA
I <sub>CC</sub>	supply current			-	+50	mA
$I_{GND}$	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

<sup>[1]</sup> The input and output voltage ratings may be exceeded if the input and output current ratings are observed. [2] For TSSOP5 packages: above 87.5 °C the value of P<sub>tot</sub> derates linearly with 4.0 mW/K.

# 9 Recommended operating conditions

Table 6. Recommended operating conditions

Symbol	Parameter	Conditions	Min	Max	Unit
$V_{CC}$	supply voltage		0.8	3.6	V
VI	input voltage		0	3.6	V
Vo	output voltage	Active mode	0	$V_{CC}$	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

74AUP1G06

L = LOW voltage level;

Z = high-impedance OFF state.

<sup>[2]</sup> For TSSOP5 packages: above 87.5 °C the value of P<sub>tot</sub> derates linearly with 4.0 mW/K.
For XSON6 and X2SON5 packages: above 118 °C the value of P<sub>tot</sub> derates linearly with 7.8 mW/K.

# 10 Static characteristics

#### Table 7. Static characteristics

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

Symbol	Parameter	Conditions	Min	Тур	Max	Unit
T <sub>amb</sub> = 2	5 °C					
V <sub>IH</sub>	HIGH-level input	V <sub>CC</sub> = 0.8 V	0.70 × V <sub>CC</sub>	-	-	V
	voltage	V <sub>CC</sub> = 0.9 V to 1.95 V	0.65 × V <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	V <sub>CC</sub> = 0.8 V	-	-	0.30 × V <sub>CC</sub>	V
	voltage	V <sub>CC</sub> = 0.9 V to 1.95 V	-	-	0.35 × V <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>OL</sub>	LOW-level output	$V_I = V_{IH}$ or $V_{IL}$				
	voltage	$I_{O}$ = 20 $\mu$ A; $V_{CC}$ = 0.8 V to 3.6 V	-	-	0.1	V
		I <sub>O</sub> = 1.1 mA; V <sub>CC</sub> = 1.1 V	-	-	0.3 × V <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
		$I_{O}$ = 2.3 mA; $V_{CC}$ = 2.3 V	-	-	0.31	V
		$I_{O}$ = 3.1 mA; $V_{CC}$ = 2.3 V		-	0.44	V
		$I_{O}$ = 2.7 mA; $V_{CC}$ = 3.0 V		-	0.31	V
		I <sub>O</sub> = 4.0 mA; V <sub>CC</sub> = 3.0 V	-	-	0.44	V
l <sub>l</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	μΑ
I <sub>OZ</sub>	OFF-state output current	V <sub>I</sub> = V <sub>IL</sub> ; V <sub>O</sub> = 0 V to 3.6 V; V <sub>CC</sub> = 0 V to 3.6 V	-	-	±0.1	μΑ
I <sub>OFF</sub>	power-off leakage current	$V_{I}$ or $V_{O} = 0$ V to 3.6 V; $V_{CC} = 0$ V	-	-	±0.2	μΑ
ΔI <sub>OFF</sub>	additional power-off leakage current	$V_{I}$ or $V_{O}$ = 0 V to 3.6 V; $V_{CC}$ = 0 V to 0.2 V	-	-	±0.2	μΑ
I <sub>CC</sub>	supply current	V <sub>I</sub> = GND or V <sub>CC</sub> ; I <sub>O</sub> = 0 A; V <sub>CC</sub> = 0.8 V to 3.6 V	-	-	0.5	μΑ
ΔI <sub>CC</sub>	additional supply current	$V_I = V_{CC} - 0.6 \text{ V}; I_O = 0 \text{ A}; V_{CC} = 3.3 \text{ V}$	-	-	40	μΑ
Cı	input capacitance	$V_{CC}$ = 0 V to 3.6 V; $V_{I}$ = GND or $V_{CC}$	-	8.0	-	pF
Co	output capacitance	output enabled; $V_O = GND$ ; $V_{CC} = 0 V$	-	1.7	-	pF
		output disabled; V <sub>O</sub> = GND; V <sub>CC</sub> = 0 V	-	1.1	-	pF

# Low-power inverter with open-drain output

Symbol	Parameter	Conditions	Min	Тур	Max	Unit
T <sub>amb</sub> = -	40 °C to +85 °C					
V <sub>IH</sub>	HIGH-level input	V <sub>CC</sub> = 0.8 V	0.70 × V <sub>CC</sub>	-	-	V
	voltage	V <sub>CC</sub> = 0.9 V to 1.95 V	0.65 × V <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	V <sub>CC</sub> = 0.8 V	-	-	0.30 × V <sub>CC</sub>	V
	voltage	V <sub>CC</sub> = 0.9 V to 1.95 V	-	-	0.35 × V <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>OL</sub>	LOW-level output	$V_I = V_{IH}$ or $V_{IL}$				
	voltage	$I_{O}$ = 20 $\mu$ A; $V_{CC}$ = 0.8 $V$ to 3.6 $V$	-	-	0.1	V
		I <sub>O</sub> = 1.1 mA; V <sub>CC</sub> = 1.1 V	-	-	0.3 × V <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
		$I_{O}$ = 2.3 mA; $V_{CC}$ = 2.3 V	-	-	0.33	V
		I <sub>O</sub> = 3.1 mA; V <sub>CC</sub> = 2.3 V	-	-	0.45	V
		$I_{O}$ = 2.7 mA; $V_{CC}$ = 3.0 V		-	0.33	V
		$I_{O}$ = 4.0 mA; $V_{CC}$ = 3.0 V	-	-	0.45	V
I <sub>I</sub>	input leakage current	$V_{I}$ = GND to 3.6 V; $V_{CC}$ = 0 V to 3.6 V	-	-	±0.5	μΑ
I <sub>OZ</sub>	OFF-state output current	V <sub>I</sub> = V <sub>IL</sub> ; V <sub>O</sub> = 0 V to 3.6 V; V <sub>CC</sub> = 0 V to 3.6 V	-	-	±0.5	μΑ
I <sub>OFF</sub>	power-off leakage current	$V_1$ or $V_0 = 0$ V to 3.6 V; $V_{CC} = 0$ V	-	-	±0.5	μΑ
Δl <sub>OFF</sub>	additional power-off leakage current	$V_1$ or $V_0 = 0$ V to 3.6 V; $V_{CC} = 0$ V to 0.2 V	-	-	±0.6	μΑ
I <sub>CC</sub>	supply current	V <sub>I</sub> = GND or V <sub>CC</sub> ; I <sub>O</sub> = 0 A; V <sub>CC</sub> = 0.8 V to 3.6 V	-	-	0.9	μΑ
Δl <sub>CC</sub>	additional supply current	$V_1 = V_{CC} - 0.6 \text{ V}; I_O = 0 \text{ A}; V_{CC} = 3.3 \text{ V}$	-	-	50	μΑ
T <sub>amb</sub> = -	40 °C to +125 °C		,			
V <sub>IH</sub>	HIGH-level input	V <sub>CC</sub> = 0.8 V	0.75 × V <sub>CC</sub>	-	-	V
	voltage	V <sub>CC</sub> = 0.9 V to 1.95 V	0.70 × V <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	-	-	٧
V <sub>IL</sub>	LOW-level input	V <sub>CC</sub> = 0.8 V	-	-	0.25 × V <sub>CC</sub>	٧
	voltage V <sub>CC</sub> = 0.9 V to 1.95 V		-	-	0.30 × V <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

#### Low-power inverter with open-drain output

Symbol	Parameter	Conditions	Min	Тур	Max	Unit
V <sub>OL</sub>	LOW-level output	$V_{I} = V_{IH}$ or $V_{IL}$				
	voltage	$I_{O}$ = 20 $\mu$ A; $V_{CC}$ = 0.8 $V$ to 3.6 $V$	-	-	0.11	V
		I <sub>O</sub> = 1.1 mA; V <sub>CC</sub> = 1.1 V	-	-	0.33 × V <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
		$I_{O}$ = 2.3 mA; $V_{CC}$ = 2.3 V	-	-	0.36	V
		I <sub>O</sub> = 3.1 mA; V <sub>CC</sub> = 2.3 V	-	-	0.50	V
		$I_{O}$ = 2.7 mA; $V_{CC}$ = 3.0 V	-	-	0.36	V
		$I_{O}$ = 4.0 mA; $V_{CC}$ = 3.0 V	-	-	0.50	V
lı	input leakage current	$V_I$ = GND to 3.6 V; $V_{CC}$ = 0 V to 3.6 V	-	-	±0.75	μΑ
l <sub>OZ</sub>	OFF-state output current	V <sub>I</sub> = V <sub>IL</sub> ; V <sub>O</sub> = 0 V to 3.6 V; V <sub>CC</sub> = 0 V to 3.6 V	-	-	±0.75	μΑ
I <sub>OFF</sub>	power-off leakage current	$V_{I}$ or $V_{O} = 0$ V to 3.6 V; $V_{CC} = 0$ V	-	-	±0.75	μΑ
Δl <sub>OFF</sub>	additional power-off leakage current	$V_{I}$ or $V_{O}$ = 0 V to 3.6 V; $V_{CC}$ = 0 V to 0.2 V	-	-	±0.75	μΑ
I <sub>CC</sub>	supply current	V <sub>I</sub> = GND or V <sub>CC</sub> ; I <sub>O</sub> = 0 A; V <sub>CC</sub> = 0.8 V to 3.6 V	-	-	1.4	μΑ
Δl <sub>CC</sub>	additional supply current	$V_I = V_{CC} - 0.6 \text{ V}; I_O = 0 \text{ A}; V_{CC} = 3.3 \text{ V}$	-	-	75	μΑ

# 11 Dynamic characteristics

#### **Table 8. Dynamic characteristics**

Voltages are referenced to GND (ground = 0 V); for test circuit see Figure 9.

Symbol Parameter		Conditions		25 °C		-40 °C to +125 °C			Unit	
				n	Typ <sup>[1]</sup>	Max	Min	Max (85 °C)	Max (125 °C)	
C <sub>L</sub> = 5 p	F							-	<u> </u>	
t <sub>pd</sub>	propagation	A to Y; see Figure 8	[2]							
	delay	V <sub>CC</sub> = 0.8 V	-		12.8	-	-	-	-	ns
		V <sub>CC</sub> = 1.1 V to 1.3 V	2.	3	4.3	9.9	2.0	10.9	12.0	ns
		V <sub>CC</sub> = 1.4 V to 1.6 V	1.	8	3.1	6.1	1.5	7.1	7.8	ns
		V <sub>CC</sub> = 1.65 V to 1.95 V	1.	5	2.8	4.7	1.2	5.7	6.3	ns
		V <sub>CC</sub> = 2.3 V to 2.7 V	1.	2	2.2	3.2	1.0	3.9	4.3	ns
		V <sub>CC</sub> = 3.0 V to 3.6 V	1.	1	2.2	3.3	0.8	3.6	4.0	ns

Symbol	Parameter	Conditions		25 °C		-40	°C to +12	25 °C	Unit
			Min	Typ <sup>[1]</sup>	Max	Min	Max (85 °C)	Max (125 °C)	
C <sub>L</sub> = 10	pF					ı			1
t <sub>pd</sub>	propagation	A to Y; see Figure 8							
	delay	V <sub>CC</sub> = 0.8 V	-	15.8	-	-	-	-	ns
		V <sub>CC</sub> = 1.1 V to 1.3 V	2.7	5.4	11.2	2.5	13.2	15.0	ns
		V <sub>CC</sub> = 1.4 V to 1.6 V	2.2	3.9	7.0	2.0	8.5	9.4	ns
		V <sub>CC</sub> = 1.65 V to 1.95 V	1.9	3.6	5.4	1.7	6.7	7.4	ns
		V <sub>CC</sub> = 2.3 V to 2.7 V	1.7	2.9	3.8	1.4	4.5	5.0	ns
		V <sub>CC</sub> = 3.0 V to 3.6 V	1.6	3.2	4.6	1.2	4.9	5.4	ns
C <sub>L</sub> = 15	pF					·			
t <sub>pd</sub>	propagation	A to Y; see Figure 8 [2]							
	delay	V <sub>CC</sub> = 0.8 V	-	18.8	-	-	-	-	ns
		V <sub>CC</sub> = 1.1 V to 1.3 V	3.2	6.4	12.2	2.9	15.2	17.0	ns
		V <sub>CC</sub> = 1.4 V to 1.6 V	2.6	4.6	7.7	2.3	9.4	10.0	ns
		V <sub>CC</sub> = 1.65 V to 1.95 V	2.3	4.5	6.6	2.1	7.3	8.1	ns
		V <sub>CC</sub> = 2.3 V to 2.7 V	2.1	3.5	4.6	1.7	5.1	5.7	ns
		V <sub>CC</sub> = 3.0 V to 3.6 V	2.0	4.0	6.0	1.5	6.5	7.2	ns
C <sub>L</sub> = 30	pF								
t <sub>pd</sub>	propagation	A to Y; see Figure 8 [2]							
	delay	V <sub>CC</sub> = 0.8 V	-	27.8	-	-	-	-	ns
		V <sub>CC</sub> = 1.1 V to 1.3 V	4.4	9.3	16.5	3.9	19.3	21.3	ns
		V <sub>CC</sub> = 1.4 V to 1.6 V	3.6	6.8	10.1	3.2	12.0	13.2	ns
		V <sub>CC</sub> = 1.65 V to 1.95 V	3.2	6.8	10.7	2.9	11.0	12.1	ns
		V <sub>CC</sub> = 2.3 V to 2.7 V	2.9	5.3	7.2	2.6	7.8	8.6	ns
		V <sub>CC</sub> = 3.0 V to 3.6 V	2.9	6.5	10.5	2.5	10.8	11.9	ns
C <sub>L</sub> = 5 p	F, 10 pF, 15 pF								,
C <sub>PD</sub>	power	$f_i = 1 \text{ MHz}; V_I = \text{GND to } V_{CC}$ [3]							
	dissipation capacitance	V <sub>CC</sub> = 0.8 V	-	0.5	-	-	-	-	pF
		V <sub>CC</sub> = 1.1 V to 1.3 V	-	0.6	-	-	-	-	pF
		V <sub>CC</sub> = 1.4 V to 1.6 V	-	0.7	-	-	-	-	pF
		V <sub>CC</sub> = 1.65 V to 1.95 V	-	0.7	-	-	-	-	pF
		V <sub>CC</sub> = 2.3 V to 2.7 V	-	1.0	-	-	-	-	pF
		V <sub>CC</sub> = 3.0 V to 3.6 V	-	1.2	-	-	-	-	pF

f<sub>i</sub> = input frequency in MHz;

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

N = number of inputs switching.

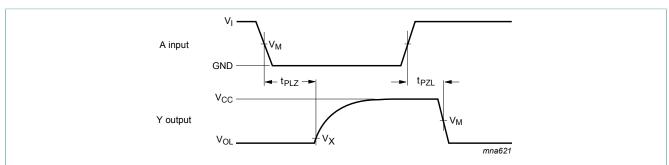
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<sup>[1]</sup> All typical values are measured at nominal  $V_{CC}$ . [2]  $t_{pd}$  is the same as  $t_{PZL}$  and  $t_{PLZ}$ . [3]  $C_{PD}$  is used to determine the dynamic power dissipation ( $P_D$  in  $\mu$ W).

 $P_D = C_{PD} \times V_{CC}^2 \times f_i \times N$  where:

#### 11.1 Waveforms and test circuit



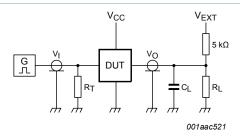
Measurement points are given in <u>Table 9</u>.

Logic level:  $V_{\text{OL}}$  is the typical output voltage level that occurs at the output load.

Figure 8. The data input (A) to output (Y) propagation delays

Table 9. Measurement points

Supply voltage	Input	Output				
V <sub>CC</sub>	V <sub>M</sub>	V <sub>M</sub>	V <sub>X</sub>			
0.8 V to 1.6 V	0.5 × V <sub>CC</sub>	0.5 × V <sub>CC</sub>	V <sub>OL</sub> + 0.1 V			
1.65 V to 2.7 V	0.5 × V <sub>CC</sub>	0.5 × V <sub>CC</sub>	V <sub>OL</sub> + 0.15 V			
3.0 V to 3.6 V	0.5 × V <sub>CC</sub>	0.5 × V <sub>CC</sub>	V <sub>OL</sub> + 0.3 V			



Test data is given in Table 10.

Definitions for test circuit:

R<sub>L</sub> = Load resistance.

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

 $R_T$  = Termination resistance should be equal to the output impedance  $Z_0$  of the pulse generator.

V<sub>EXT</sub> = External voltage for measuring switching times.

Figure 9. Test circuit for measuring switching times

Table 10. Test data

Supply voltage	Load		V <sub>EXT</sub>				
V <sub>CC</sub>	CL	R <sub>L</sub> [1]	t <sub>PLH</sub> , t <sub>PHL</sub>	t <sub>PZH</sub> , t <sub>PHZ</sub>	t <sub>PZL</sub> , t <sub>PLZ</sub>		
0.8 V to 3.6 V	5 pF, 10 pF, 15 pF and 30 pF	5 k $\Omega$ or 1 M $\Omega$	open	GND	2 × V <sub>CC</sub>		

[1] For measuring enable and disable times  $R_L = 5 \, k\Omega$ , for measuring propagation delays, setup and hold times and pulse width  $R_L = 1 \, M\Omega$ .

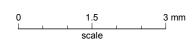
74AUP1G06

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# 12 Package outline

# TSSOP5: plastic thin shrink small outline package; 5 leads; body width 1.25 mm SOT353-1



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

UNIT	A max.	A <sub>1</sub>	A <sub>2</sub>	А3	bp	С	D <sup>(1)</sup>	E <sup>(1)</sup>	е	e <sub>1</sub>	HE	L	Lp	v	w	у	Z <sup>(1)</sup>	θ
mm	1.1	0.1 0	1.0 0.8	0.15	0.30 0.15	0.25 0.08	2.25 1.85	1.35 1.15	0.65	1.3	2.25 2.0	0.425	0.46 0.21	0.3	0.1	0.1	0.60 0.15	7° 0°

detail X

#### Note

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

OUTLINE VERSION		REFER	EUROPEAN	ISSUE DATE		
	IEC	JEDEC	JEITA		PROJECTION	ISSUE DATE
SOT353-1		MO-203	SC-88A			<del>-00-09-01-</del> 03-02-19

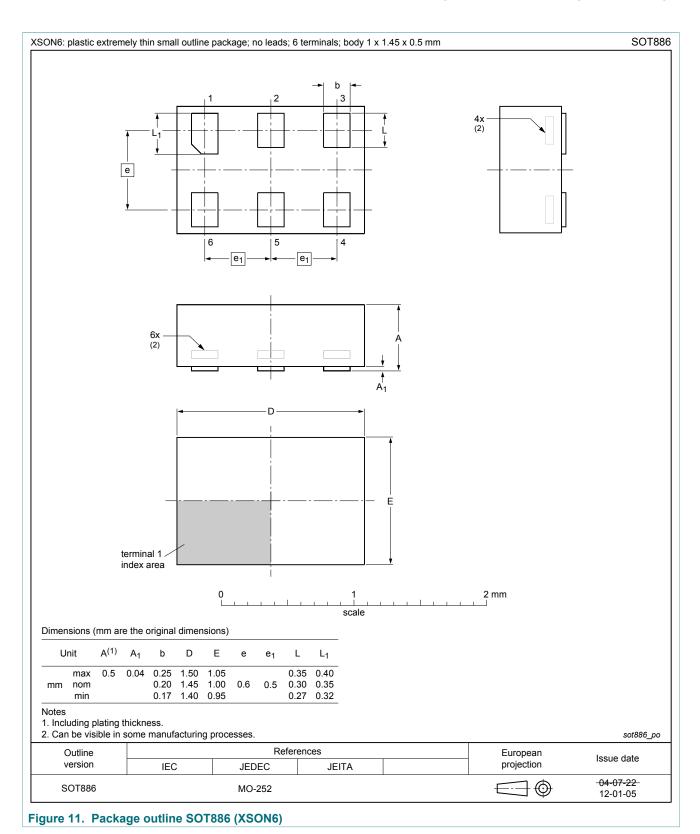
Figure 10. Package outline SOT353-1 (TSSOP5)

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#### Low-power inverter with open-drain output



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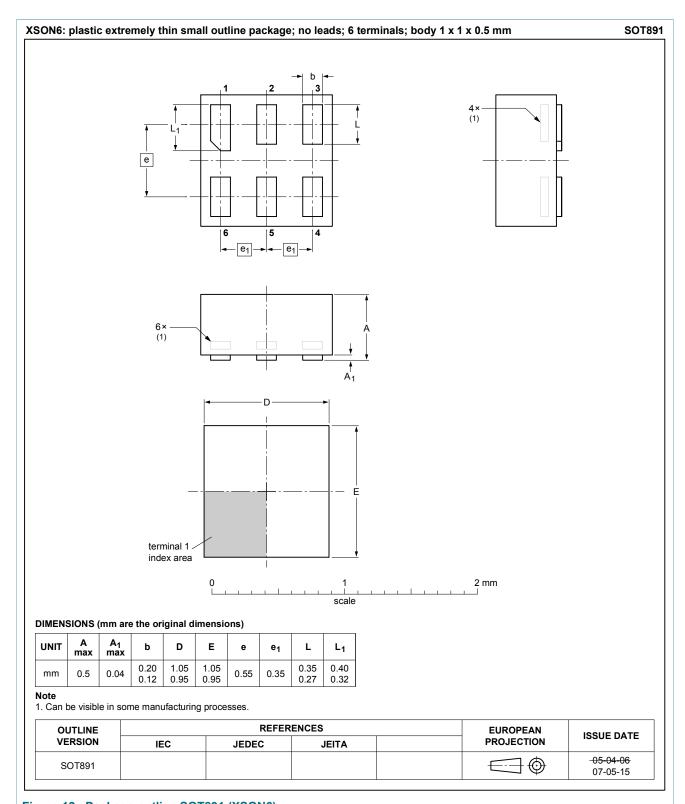
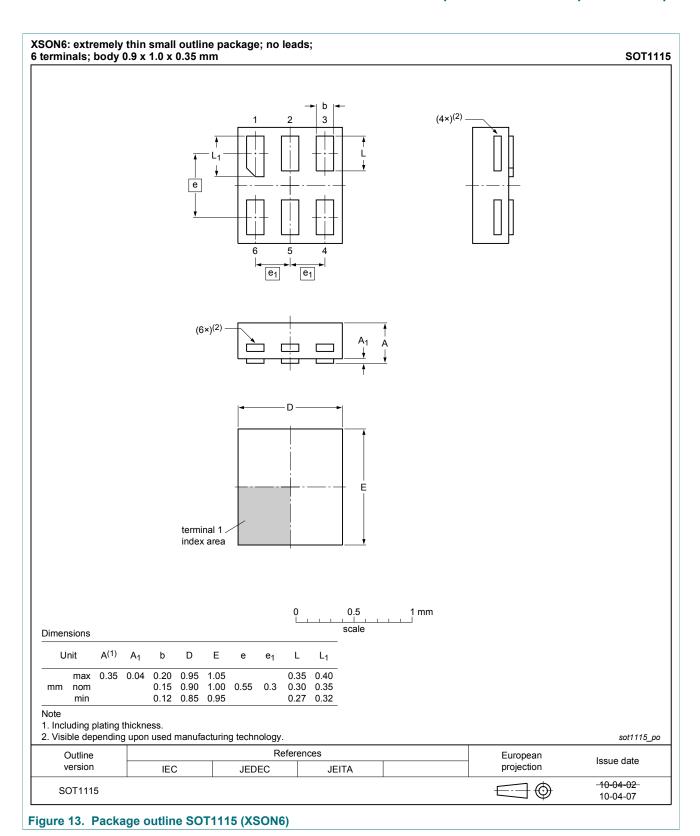
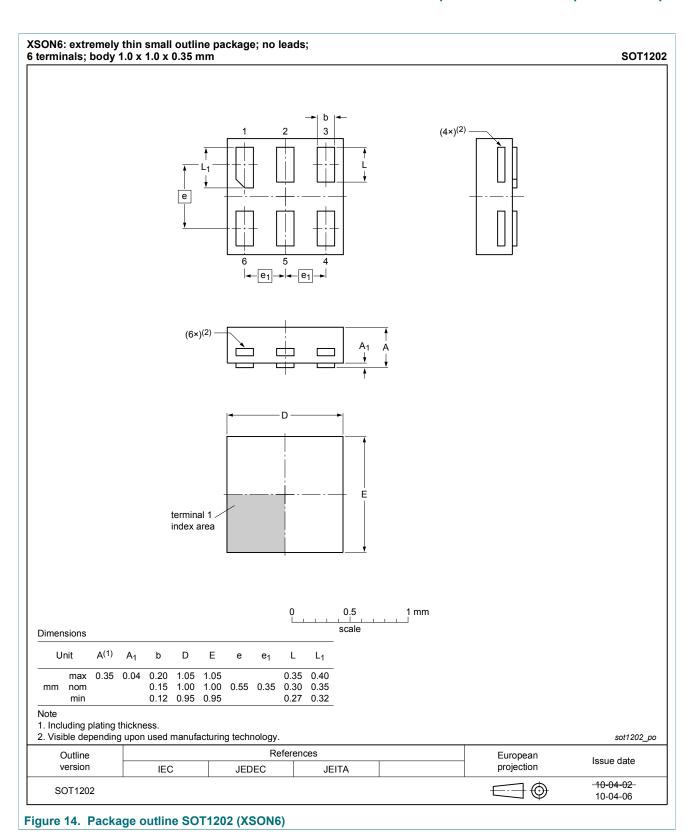
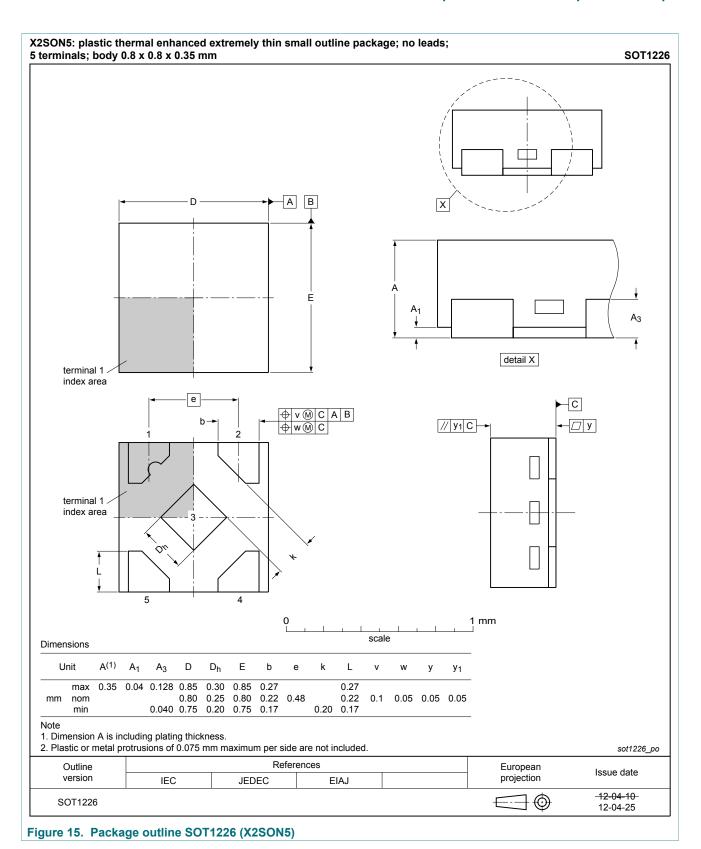


Figure 12. Package outline SOT891 (XSON6)







# 13 Abbreviations

#### **Table 11. Abbreviations**

Acronym	Description
CDM	Charged Device Model
DUT	Device Under Test
ESD	ElectroStatic Discharge
НВМ	Human Body Model
MM	Machine Model

# 14 Revision history

#### Table 12. Revision history

Document ID	Release date	Data sheet status	Change notice	Supersedes
74AUP1G06 v.8	20180212	Product data sheet	-	74AUP1G06 v.7
Modifications:	Nexperia. • Legal texts have	nis data sheet has been rede e been adapted to the new on on drawing of SOT1226 (X2S	ompany name where appro	
74AUP1G06 v.7	20120628	Product data sheet	-	74AUP1G06 v.6
Modifications:		nber 74AUP1G06GX (SOT1) e drawing of SOT886 ( <u>Figure</u>	•	,
74AUP1G06 v.6	20111115	Product data sheet	-	74AUP1G06 v.5
Modifications:	<ul> <li>Legal pages up</li> </ul>	dated.		,
74AUP1G06 v.5	20101022	Product data sheet	-	74AUP1G06 v.4
74AUP1G06 v.4	20090610	Product data sheet	-	74AUP1G06 v.3
74AUP1G06 v.3	20070615	Product data sheet	-	74AUP1G06 v.2
74AUP1G06 v.2	20060824	Product data sheet	-	74AUP1G06 v.1
74AUP1G06 v.1	20050718	Product data sheet	-	-

## 15 Legal information

#### 15.1 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.

- Please consult the most recently issued document before initiating or completing a design.
- The term 'short data sheet' is explained in section "Definitions". [2] [3]
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