

# 74AUP1G126

Low-power buffer/line driver; 3-state

Rev. 7 — 16 May 2018

Product data sheet

## 1 General description

The 74AUP1G126 provides a single non-inverting buffer/line driver with 3-state output. The 3-state output is controlled by the output enable input (OE). A LOW level at pin OE causes the output to assume a high-impedance OFF-state. This device has the input-disable feature, which allows floating input signals. The inputs are disabled when the output enable input OE is LOW.

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)
- 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;  $I_{CC} = 0.9 \mu\text{A}$  (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  $V_{CC}$
- Input-disable feature allows floating input conditions
- $I_{OFF}$  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			Version
	Temperature range	Name	Description	
74AUP1G126GW	-40 °C to +125 °C	TSSOP5	plastic thin shrink small outline package; 5 leads; body width 1.25 mm	SOT353-1
74AUP1G126GM	-40 °C to +125 °C	XSON6	plastic extremely thin small outline package; no leads; 6 terminals; body 1 x 1.45 x 0.5 mm	SOT886
74AUP1G126GF	-40 °C to +125 °C	XSON6	plastic extremely thin small outline package; no leads; 6 terminals; body 1 x 1 x 0.5 mm	SOT891
74AUP1G126GN	-40 °C to +125 °C	XSON6	extremely thin small outline package; no leads; 6 terminals; body 0.9 x 1.0 x 0.35 mm	SOT1115
74AUP1G126GS	-40 °C to +125 °C	XSON6	extremely thin small outline package; no leads; 6 terminals; body 1.0 x 1.0 x 0.35 mm	SOT1202
74AUP1G126GX	-40 °C to +125 °C	X2SON5	plastic thermal enhanced extremely thin small outline package; no leads; 5 terminals; body 0.8 x 0.8 x 0.35 mm	SOT1226

### 4 Marking

Table 2. Marking

Type number	Marking code <sup>[1]</sup>
74AUP1G126GW	pN
74AUP1G126GM	pN
74AUP1G126GF	pN
74AUP1G126GN	pN
74AUP1G126GS	pN
74AUP1G126GX	pN

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

### 5 Functional diagram

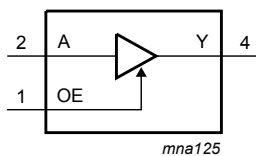


Figure 1. Logic symbol

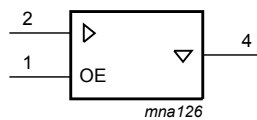


Figure 2. IEC logic symbol

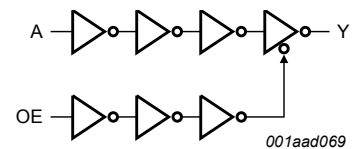


Figure 3. Logic diagram

## 6 Pinning information

### 6.1 Pinning

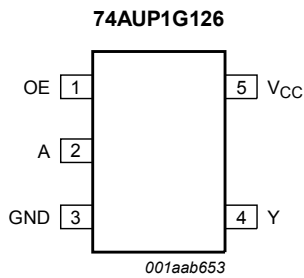


Figure 4. Pin configuration SOT353-1

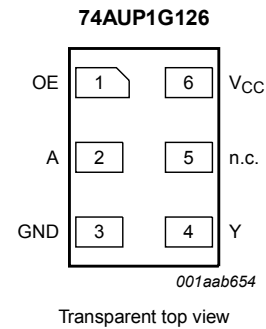


Figure 5. Pin configuration SOT886

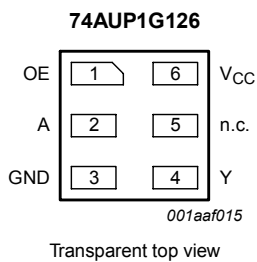


Figure 6. Pin configuration SOT891, SOT1115 and SOT1202

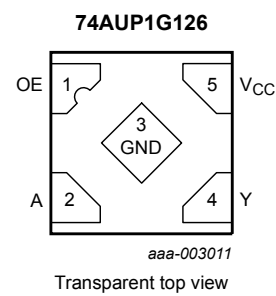


Figure 7. Pin configuration SOT1226 (X2SON5)

### 6.2 Pin description

Table 3. Pin description

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

## 7 Functional description

**Table 4. Function table**

H = HIGH voltage level; L = LOW voltage level; X = Don't care; Z = high-impedance OFF-state.

Input		Output
OE	A	Y
H	L	L
H	H	H
L	X	Z

## 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
$I_{IK}$	input clamping current	$V_I < 0$ V	-50	-	mA
$V_I$	input voltage		[1] -0.5	+4.6	V
$I_{OK}$	output clamping current	$V_O < 0$ V	-50	-	mA
$V_O$	output voltage	Active mode	[1] -0.5	$V_{CC} + 0.5$	V
		Power-down mode	[1] -0.5	+4.6	V
$I_O$	output current	$V_O = 0$ V to $V_{CC}$	-	$\pm 20$	mA
$I_{CC}$	supply current		-	+50	mA
$I_{GND}$	ground current		-50	-	mA
$T_{stg}$	storage temperature		-65	+150	°C
$P_{tot}$	total power dissipation	$T_{amb} = -40$ °C to +125 °C	[2] -	250	mW

[1] 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  $P_{tot}$  derates linearly with 4.0 mW/K.

For XSON6 and X2SON5 packages: above 118 °C the value of  $P_{tot}$  derates linearly with 7.8 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
$V_I$	input voltage		0	3.6	V
$V_O$	output voltage	Active mode	0	$V_{CC}$	V
		Power-down mode; $V_{CC} = 0$ V	0	3.6	V
$T_{amb}$	ambient temperature		-40	+125	°C
$\Delta t/\Delta V$	input transition rise and fall rate	$V_{CC} = 0.8$ 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	0.70 × V <sub>CC</sub>	-	-	V
		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 voltage	V <sub>CC</sub> = 0.8 V	-	-	0.30 × V <sub>CC</sub>	V
		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>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	0.75 × V <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
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	-	-	0.3 × 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 <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>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>OZ</sub>	OFF-state output current	V <sub>I</sub> = V <sub>IH</sub> or 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	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

Symbol	Parameter	Conditions	Min	Typ	Max	Unit
$I_{CC}$	supply current	$V_I = \text{GND}$ or $V_{CC}$ ; $I_O = 0 \text{ A}$ ; $V_{CC} = 0.8 \text{ V}$ to $3.6 \text{ V}$	-	-	0.5	$\mu\text{A}$
$\Delta I_{CC}$	additional supply current	data input; $V_I = V_{CC} - 0.6 \text{ V}$ ; $I_O = 0 \text{ A}$ ; $V_{CC} = 3.3 \text{ V}$ [1]	-	-	40	$\mu\text{A}$
		OE input; $V_I = V_{CC} - 0.6 \text{ V}$ ; $I_O = 0 \text{ A}$ ; $V_{CC} = 3.3 \text{ V}$ [1]	-	-	110	$\mu\text{A}$
		all inputs; $V_I = \text{GND}$ to $3.6 \text{ V}$ ; OE = GND; $V_{CC} = 0.8 \text{ V}$ to $3.6 \text{ V}$ [2]	-	-	1	$\mu\text{A}$
$C_I$	input capacitance	$V_{CC} = 0 \text{ V}$ to $3.6 \text{ V}$ ; $V_I = \text{GND}$ or $V_{CC}$	-	0.9	-	$\text{pF}$
$C_O$	output capacitance	output enabled; $V_O = \text{GND}$ ; $V_{CC} = 0 \text{ V}$	-	1.7	-	$\text{pF}$
		output disabled; $V_{CC} = 0 \text{ V}$ to $3.6 \text{ V}$ ; $V_O = \text{GND}$ or $V_{CC}$	-	1.5	-	$\text{pF}$
<b><math>T_{\text{amb}} = -40 \text{ }^\circ\text{C}</math> to <math>+85 \text{ }^\circ\text{C}</math></b>						
$V_{IH}$	HIGH-level input voltage	$V_{CC} = 0.8 \text{ V}$	$0.70 \times V_{CC}$	-	-	$\text{V}$
		$V_{CC} = 0.9 \text{ V}$ to $1.95 \text{ V}$	$0.65 \times V_{CC}$	-	-	$\text{V}$
		$V_{CC} = 2.3 \text{ V}$ to $2.7 \text{ V}$	1.6	-	-	$\text{V}$
		$V_{CC} = 3.0 \text{ V}$ to $3.6 \text{ V}$	2.0	-	-	$\text{V}$
$V_{IL}$	LOW-level input voltage	$V_{CC} = 0.8 \text{ V}$	-	-	$0.30 \times V_{CC}$	$\text{V}$
		$V_{CC} = 0.9 \text{ V}$ to $1.95 \text{ V}$	-	-	$0.35 \times V_{CC}$	$\text{V}$
		$V_{CC} = 2.3 \text{ V}$ to $2.7 \text{ V}$	-	-	0.7	$\text{V}$
		$V_{CC} = 3.0 \text{ V}$ to $3.6 \text{ V}$	-	-	0.9	$\text{V}$
$V_{OH}$	HIGH-level output voltage	$V_I = V_{IH}$ or $V_{IL}$				
		$I_O = -20 \mu\text{A}$ ; $V_{CC} = 0.8 \text{ V}$ to $3.6 \text{ V}$	$V_{CC} - 0.1$	-	-	$\text{V}$
		$I_O = -1.1 \text{ mA}$ ; $V_{CC} = 1.1 \text{ V}$	$0.7 \times V_{CC}$	-	-	$\text{V}$
		$I_O = -1.7 \text{ mA}$ ; $V_{CC} = 1.4 \text{ V}$	1.03	-	-	$\text{V}$
		$I_O = -1.9 \text{ mA}$ ; $V_{CC} = 1.65 \text{ V}$	1.30	-	-	$\text{V}$
		$I_O = -2.3 \text{ mA}$ ; $V_{CC} = 2.3 \text{ V}$	1.97	-	-	$\text{V}$
		$I_O = -3.1 \text{ mA}$ ; $V_{CC} = 2.3 \text{ V}$	1.85	-	-	$\text{V}$
		$I_O = -2.7 \text{ mA}$ ; $V_{CC} = 3.0 \text{ V}$	2.67	-	-	$\text{V}$
$I_O = -4.0 \text{ mA}$ ; $V_{CC} = 3.0 \text{ V}$	2.55	-	-	$\text{V}$		

Symbol	Parameter	Conditions	Min	Typ	Max	Unit	
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	-	-	0.3 × 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 <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>OZ</sub>	OFF-state output current	V <sub>I</sub> = V <sub>IH</sub> or 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	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; V <sub>CC</sub> = 0.8 V to 3.6 V	-	-	0.9	μA	
ΔI <sub>CC</sub>	additional supply current	data input; V <sub>I</sub> = V <sub>CC</sub> - 0.6 V; I <sub>O</sub> = 0 A; V <sub>CC</sub> = 3.3 V	[1]	-	-	50	μA
		OE input; V <sub>I</sub> = V <sub>CC</sub> - 0.6 V; I <sub>O</sub> = 0 A; V <sub>CC</sub> = 3.3 V	[1]	-	-	120	μA
		all inputs; V <sub>I</sub> = GND to 3.6 V; OE = GND; V <sub>CC</sub> = 0.8 V to 3.6 V	[2]	-	-	1	μA
<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	0.75 × V <sub>CC</sub>	-	-	V	
		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	-	-	V	
V <sub>IL</sub>	LOW-level input voltage	V <sub>CC</sub> = 0.8 V	-	-	0.25 × V <sub>CC</sub>	V	
		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	

Symbol	Parameter	Conditions	Min	Typ	Max	Unit
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	0.6 × V <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	-	-	0.33 × 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 <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>OZ</sub>	OFF-state output current	V <sub>I</sub> = V <sub>IH</sub> or 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	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; V <sub>CC</sub> = 0.8 V to 3.6 V	-	-	1.4	μA
ΔI <sub>CC</sub>	additional supply current	data input; V <sub>I</sub> = V <sub>CC</sub> - 0.6 V; I <sub>O</sub> = 0 A; V <sub>CC</sub> = 3.3 V <sup>[1]</sup>	-	-	75	μA
		OE input; V <sub>I</sub> = V <sub>CC</sub> - 0.6 V; I <sub>O</sub> = 0 A; V <sub>CC</sub> = 3.3 V <sup>[1]</sup>	-	-	180	μA
		all inputs; V <sub>I</sub> = GND to 3.6 V; OE = GND; V <sub>CC</sub> = 0.8 V to 3.6 V <sup>[2]</sup>	-	-	1	μA

[1] One input at V<sub>CC</sub> - 0.6 V, other input at V<sub>CC</sub> or GND.  
 [2] To show I<sub>CC</sub> remains very low when the input-disable feature is enabled.



## 11 Dynamic characteristics

**Table 8. Dynamic characteristics**

Voltages are referenced to GND (ground = 0 V); for test circuit see [Figure 10](#)

Symbol	Parameter	Conditions	Min	Typ <sup>[1]</sup>	Max	Unit
<b>T<sub>amb</sub> = 25 °C; C<sub>L</sub> = 5 pF</b>						
t <sub>pd</sub>	propagation delay	A to Y; see <a href="#">Figure 8</a> <sup>[2]</sup>				
		V <sub>CC</sub> = 0.8 V	-	20.6	-	ns
		V <sub>CC</sub> = 1.1 V to 1.3 V	2.8	5.5	10.5	ns
		V <sub>CC</sub> = 1.4 V to 1.6 V	2.2	3.9	6.1	ns
		V <sub>CC</sub> = 1.65 V to 1.95 V	1.9	3.2	4.8	ns
		V <sub>CC</sub> = 2.3 V to 2.7 V	1.6	2.6	3.6	ns
		V <sub>CC</sub> = 3.0 V to 3.6 V	1.4	2.4	3.1	ns
t <sub>en</sub>	enable time	OE to Y; see <a href="#">Figure 9</a> <sup>[3]</sup>				
		V <sub>CC</sub> = 0.8 V	-	71.6	-	ns
		V <sub>CC</sub> = 1.1 V to 1.3 V	2.8	6.2	12.4	ns
		V <sub>CC</sub> = 1.4 V to 1.6 V	2.3	4.2	6.9	ns
		V <sub>CC</sub> = 1.65 V to 1.95 V	1.9	3.3	5.3	ns
		V <sub>CC</sub> = 2.3 V to 2.7 V	1.5	2.4	3.6	ns
		V <sub>CC</sub> = 3.0 V to 3.6 V	1.3	2.0	2.9	ns
t <sub>dis</sub>	disable time	OE to Y; see <a href="#">Figure 9</a> <sup>[4]</sup>				
		V <sub>CC</sub> = 0.8 V	-	10.3	-	ns
		V <sub>CC</sub> = 1.1 V to 1.3 V	2.6	4.2	6.2	ns
		V <sub>CC</sub> = 1.4 V to 1.6 V	2.1	3.2	4.4	ns
		V <sub>CC</sub> = 1.65 V to 1.95 V	2.1	3.1	4.4	ns
		V <sub>CC</sub> = 2.3 V to 2.7 V	1.7	2.4	3.2	ns
		V <sub>CC</sub> = 3.0 V to 3.6 V	2.1	2.8	3.6	ns
<b>T<sub>amb</sub> = 25 °C; C<sub>L</sub> = 10 pF</b>						
t <sub>pd</sub>	propagation delay	see <a href="#">Figure 8</a> <sup>[2]</sup>				
		V <sub>CC</sub> = 0.8 V	-	24.0	-	ns
		V <sub>CC</sub> = 1.1 V to 1.3 V	3.2	6.4	12.3	ns
		V <sub>CC</sub> = 1.4 V to 1.6 V	2.1	4.5	7.3	ns
		V <sub>CC</sub> = 1.65 V to 1.95 V	1.9	3.8	5.5	ns
		V <sub>CC</sub> = 2.3 V to 2.7 V	2.1	3.2	4.2	ns
		V <sub>CC</sub> = 3.0 V to 3.6 V	1.8	3.0	3.8	ns

Symbol	Parameter	Conditions	Min	Typ <sup>[1]</sup>	Max	Unit
t <sub>en</sub>	enable time	see <a href="#">Figure 9</a> <sup>[3]</sup>				
		V <sub>CC</sub> = 0.8 V	-	75.3	-	ns
		V <sub>CC</sub> = 1.1 V to 1.3 V	3.2	7.1	14.1	ns
		V <sub>CC</sub> = 1.4 V to 1.6 V	2.2	4.8	8.0	ns
		V <sub>CC</sub> = 1.65 V to 1.95 V	1.8	3.9	5.9	ns
		V <sub>CC</sub> = 2.3 V to 2.7 V	1.5	2.9	4.2	ns
		V <sub>CC</sub> = 3.0 V to 3.6 V	1.4	2.6	3.6	ns
t <sub>dis</sub>	disable time	see <a href="#">Figure 9</a> <sup>[4]</sup>				
		V <sub>CC</sub> = 0.8 V	-	12.2	-	ns
		V <sub>CC</sub> = 1.1 V to 1.3 V	3.5	5.3	7.6	ns
		V <sub>CC</sub> = 1.4 V to 1.6 V	2.2	4.1	5.6	ns
		V <sub>CC</sub> = 1.65 V to 1.95 V	2.4	4.2	5.7	ns
		V <sub>CC</sub> = 2.3 V to 2.7 V	1.9	3.2	4.1	ns
		V <sub>CC</sub> = 3.0 V to 3.6 V	2.4	4.1	5.0	ns
<b>T<sub>amb</sub> = 25 °C; C<sub>L</sub> = 15 pF</b>						
t <sub>pd</sub>	propagation delay	see <a href="#">Figure 8</a> <sup>[2]</sup>				
		V <sub>CC</sub> = 0.8 V	-	27.4	-	ns
		V <sub>CC</sub> = 1.1 V to 1.3 V	3.6	7.2	14.1	ns
		V <sub>CC</sub> = 1.4 V to 1.6 V	3.0	5.1	8.1	ns
		V <sub>CC</sub> = 1.65 V to 1.95 V	2.2	4.3	6.3	ns
		V <sub>CC</sub> = 2.3 V to 2.7 V	2.0	3.7	4.9	ns
		V <sub>CC</sub> = 3.0 V to 3.6 V	2.0	3.5	4.4	ns
t <sub>en</sub>	enable time	see <a href="#">Figure 9</a> <sup>[3]</sup>				
		V <sub>CC</sub> = 0.8 V	-	79.2	-	ns
		V <sub>CC</sub> = 1.1 V to 1.3 V	3.6	7.8	15.8	ns
		V <sub>CC</sub> = 1.4 V to 1.6 V	3.0	5.4	8.8	ns
		V <sub>CC</sub> = 1.65 V to 1.95 V	2.1	4.3	6.7	ns
		V <sub>CC</sub> = 2.3 V to 2.7 V	1.8	3.4	4.8	ns
		V <sub>CC</sub> = 3.0 V to 3.6 V	1.6	3.1	4.3	ns

Symbol	Parameter	Conditions	Min	Typ <sup>[1]</sup>	Max	Unit
t <sub>dis</sub>	disable time	see <a href="#">Figure 9</a> <sup>[4]</sup>				
		V <sub>CC</sub> = 0.8 V	-	14.9	-	ns
		V <sub>CC</sub> = 1.1 V to 1.3 V	4.3	6.4	8.5	ns
		V <sub>CC</sub> = 1.4 V to 1.6 V	3.0	5.0	6.6	ns
		V <sub>CC</sub> = 1.65 V to 1.95 V	3.1	5.4	6.6	ns
		V <sub>CC</sub> = 2.3 V to 2.7 V	2.4	4.0	5.0	ns
		V <sub>CC</sub> = 3.0 V to 3.6 V	3.2	5.3	6.2	ns
<b>T<sub>amb</sub> = 25 °C; C<sub>L</sub> = 30 pF</b>						
t <sub>pd</sub>	propagation delay	see <a href="#">Figure 8</a> <sup>[2]</sup>				
		V <sub>CC</sub> = 0.8 V	-	37.4	-	ns
		V <sub>CC</sub> = 1.1 V to 1.3 V	4.8	9.5	18.7	ns
		V <sub>CC</sub> = 1.4 V to 1.6 V	4.0	6.7	10.8	ns
		V <sub>CC</sub> = 1.65 V to 1.95 V	2.9	5.6	8.4	ns
		V <sub>CC</sub> = 2.3 V to 2.7 V	2.7	4.8	6.3	ns
		V <sub>CC</sub> = 3.0 V to 3.6 V	2.7	4.6	5.8	ns
t <sub>en</sub>	enable time	see <a href="#">Figure 9</a> <sup>[3]</sup>				
		V <sub>CC</sub> = 0.8 V	-	90.6	-	ns
		V <sub>CC</sub> = 1.1 V to 1.3 V	4.7	10.0	20.4	ns
		V <sub>CC</sub> = 1.4 V to 1.6 V	3.0	6.9	11.3	ns
		V <sub>CC</sub> = 1.65 V to 1.95 V	2.6	5.6	8.6	ns
		V <sub>CC</sub> = 2.3 V to 2.7 V	2.3	4.5	6.3	ns
		V <sub>CC</sub> = 3.0 V to 3.6 V	2.2	4.2	5.8	ns
t <sub>dis</sub>	disable time	see <a href="#">Figure 9</a> <sup>[4]</sup>				
		V <sub>CC</sub> = 0.8 V	-	51.6	-	ns
		V <sub>CC</sub> = 1.1 V to 1.3 V	6.0	9.8	13.6	ns
		V <sub>CC</sub> = 1.4 V to 1.6 V	4.5	7.7	10.5	ns
		V <sub>CC</sub> = 1.65 V to 1.95 V	5.2	8.8	11.4	ns
		V <sub>CC</sub> = 2.3 V to 2.7 V	3.9	6.4	7.4	ns
		V <sub>CC</sub> = 3.0 V to 3.6 V	5.5	9.0	10.7	ns

Symbol	Parameter	Conditions	Min	Typ <sup>[1]</sup>	Max	Unit
<b>T<sub>amb</sub> = 25 °C</b>						
C <sub>PD</sub>	power dissipation capacitance	f = 1 MHz; V <sub>I</sub> = GND to V <sub>CC</sub> <sup>[5]</sup>				
		output enabled				
		V <sub>CC</sub> = 0.8 V	-	2.7	-	pF
		V <sub>CC</sub> = 1.1 V to 1.3 V	-	2.8	-	pF
		V <sub>CC</sub> = 1.4 V to 1.6 V	-	2.9	-	pF
		V <sub>CC</sub> = 1.65 V to 1.95 V	-	3.0	-	pF
		V <sub>CC</sub> = 2.3 V to 2.7 V	-	3.6	-	pF
V <sub>CC</sub> = 3.0 V to 3.6 V	-	4.2	-	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] t<sub>en</sub> is the same as t<sub>PZH</sub> and t<sub>PZL</sub>.
- [4] t<sub>dis</sub> is the same as t<sub>PHZ</sub> and t<sub>PLZ</sub>.
- [5] 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;  
 Σ(C<sub>L</sub> × V<sub>CC</sub><sup>2</sup> × f<sub>o</sub>) = sum of the outputs.

**Table 9. Dynamic characteristics**

Voltages are referenced to GND (ground = 0 V); for test circuit see [Figure 10](#)

Symbol	Parameter	Conditions	-40 °C to +85 °C		-40 °C to +125 °C		Unit
			Min	Max	Min	Max	
<b>C<sub>L</sub> = 5 pF</b>							
t <sub>pd</sub>	propagation delay	A to Y; see <a href="#">Figure 8</a> <sup>[1]</sup>					
		V <sub>CC</sub> = 1.1 V to 1.3 V	2.5	11.7	2.5	12.9	ns
		V <sub>CC</sub> = 1.4 V to 1.6 V	2.0	7.3	2.0	8.1	ns
		V <sub>CC</sub> = 1.65 V to 1.95 V	1.7	6.1	1.7	6.7	ns
		V <sub>CC</sub> = 2.3 V to 2.7 V	1.4	4.3	1.4	4.9	ns
		V <sub>CC</sub> = 3.0 V to 3.6 V	1.2	3.9	1.2	4.4	ns
t <sub>en</sub>	enable time	OE to Y; see <a href="#">Figure 9</a> <sup>[2]</sup>					
		V <sub>CC</sub> = 1.1 V to 1.3 V	2.6	13.6	2.6	13.6	ns
		V <sub>CC</sub> = 1.4 V to 1.6 V	2.2	7.4	2.2	7.7	ns
		V <sub>CC</sub> = 1.65 V to 1.95 V	1.7	5.9	1.7	6.2	ns
		V <sub>CC</sub> = 2.3 V to 2.7 V	1.4	3.8	1.4	4.1	ns
		V <sub>CC</sub> = 3.0 V to 3.6 V	1.2	3.2	1.2	3.4	ns

Symbol	Parameter	Conditions	-40 °C to +85 °C		-40 °C to +125 °C		Unit
			Min	Max	Min	Max	
t <sub>dis</sub>	disable time	OE to Y; see <a href="#">Figure 9</a> <sup>[3]</sup>					
		V <sub>CC</sub> = 1.1 V to 1.3 V	2.9	6.4	2.9	6.5	ns
		V <sub>CC</sub> = 1.4 V to 1.6 V	2.2	4.6	2.2	4.7	ns
		V <sub>CC</sub> = 1.65 V to 1.95 V	1.7	4.6	1.7	4.8	ns
		V <sub>CC</sub> = 2.3 V to 2.7 V	1.4	3.4	1.4	3.6	ns
		V <sub>CC</sub> = 3.0 V to 3.6 V	1.2	3.7	1.2	3.8	ns
<b>C<sub>L</sub> = 10 pF</b>							
t <sub>pd</sub>	propagation delay	A to Y; see <a href="#">Figure 8</a> <sup>[1]</sup>					
		V <sub>CC</sub> = 1.1 V to 1.3 V	3.0	13.8	3.0	15.2	ns
		V <sub>CC</sub> = 1.4 V to 1.6 V	1.9	8.5	1.9	9.4	ns
		V <sub>CC</sub> = 1.65 V to 1.95 V	1.7	6.8	1.7	7.6	ns
		V <sub>CC</sub> = 2.3 V to 2.7 V	1.6	5.3	1.6	5.9	ns
		V <sub>CC</sub> = 3.0 V to 3.6 V	1.6	4.6	1.6	5.2	ns
t <sub>en</sub>	enable time	OE to Y; see <a href="#">Figure 9</a> <sup>[2]</sup>					
		V <sub>CC</sub> = 1.1 V to 1.3 V	3.0	15.4	3.0	15.4	ns
		V <sub>CC</sub> = 1.4 V to 1.6 V	2.1	8.3	2.1	8.6	ns
		V <sub>CC</sub> = 1.65 V to 1.95 V	1.7	6.5	1.7	6.8	ns
		V <sub>CC</sub> = 2.3 V to 2.7 V	1.4	4.5	1.4	4.8	ns
		V <sub>CC</sub> = 3.0 V to 3.6 V	1.3	3.8	1.3	4.0	ns
t <sub>dis</sub>	disable time	OE to Y; see <a href="#">Figure 9</a> <sup>[3]</sup>					
		V <sub>CC</sub> = 1.1 V to 1.3 V	3.3	7.9	3.3	7.9	ns
		V <sub>CC</sub> = 1.4 V to 1.6 V	2.1	5.7	2.1	5.9	ns
		V <sub>CC</sub> = 1.65 V to 1.95 V	1.7	5.8	1.7	6.0	ns
		V <sub>CC</sub> = 2.3 V to 2.7 V	1.4	4.3	1.4	4.5	ns
		V <sub>CC</sub> = 3.0 V to 3.6 V	1.3	5.2	1.3	5.3	ns

Symbol	Parameter	Conditions	-40 °C to +85 °C		-40 °C to +125 °C		Unit
			Min	Max	Min	Max	
<b><math>C_L = 15 \text{ pF}</math></b>							
$t_{pd}$	propagation delay	A to Y; see <a href="#">Figure 8</a> <sup>[1]</sup>					
		$V_{CC} = 1.1 \text{ V to } 1.3 \text{ V}$	3.3	15.8	3.3	17.5	ns
		$V_{CC} = 1.4 \text{ V to } 1.6 \text{ V}$	2.5	9.8	2.5	10.9	ns
		$V_{CC} = 1.65 \text{ V to } 1.95 \text{ V}$	2.0	7.9	2.0	8.8	ns
		$V_{CC} = 2.3 \text{ V to } 2.7 \text{ V}$	1.8	6.0	1.8	6.7	ns
		$V_{CC} = 3.0 \text{ V to } 3.6 \text{ V}$	1.8	5.4	1.8	6.1	ns
$t_{en}$	enable time	OE to Y; see <a href="#">Figure 9</a> <sup>[2]</sup>					
		$V_{CC} = 1.1 \text{ V to } 1.3 \text{ V}$	3.3	17.1	3.3	17.1	ns
		$V_{CC} = 1.4 \text{ V to } 1.6 \text{ V}$	2.9	9.4	2.9	9.7	ns
		$V_{CC} = 1.65 \text{ V to } 1.95 \text{ V}$	2.0	7.3	2.0	7.7	ns
		$V_{CC} = 2.3 \text{ V to } 2.7 \text{ V}$	1.7	5.2	1.7	5.6	ns
		$V_{CC} = 3.0 \text{ V to } 3.6 \text{ V}$	1.5	4.5	1.5	4.7	ns
$t_{dis}$	disable time	OE to Y; see <a href="#">Figure 9</a> <sup>[3]</sup>					
		$V_{CC} = 1.1 \text{ V to } 1.3 \text{ V}$	3.7	9.3	3.7	9.4	ns
		$V_{CC} = 1.4 \text{ V to } 1.6 \text{ V}$	2.5	6.9	2.5	7.0	ns
		$V_{CC} = 1.65 \text{ V to } 1.95 \text{ V}$	2.0	7.4	2.0	7.5	ns
		$V_{CC} = 2.3 \text{ V to } 2.7 \text{ V}$	1.7	5.1	1.7	5.5	ns
		$V_{CC} = 3.0 \text{ V to } 3.6 \text{ V}$	1.5	6.7	1.5	6.9	ns

Symbol	Parameter	Conditions	-40 °C to +85 °C		-40 °C to +125 °C		Unit
			Min	Max	Min	Max	
<b><math>C_L = 30</math> pF</b>							
$t_{pd}$	propagation delay	A to Y; see <a href="#">Figure 8</a> <sup>[1]</sup>					
		$V_{CC} = 1.1$ V to 1.3 V	4.4	21.4	4.4	24.0	ns
		$V_{CC} = 1.4$ V to 1.6 V	3.0	13.0	3.0	14.5	ns
		$V_{CC} = 1.65$ V to 1.95 V	2.6	10.3	2.6	11.5	ns
		$V_{CC} = 2.3$ V to 2.7 V	2.5	7.8	2.5	8.7	ns
		$V_{CC} = 3.0$ V to 3.6 V	2.5	7.0	2.5	8.3	ns
$t_{en}$	enable time	OE to Y; see <a href="#">Figure 9</a> <sup>[2]</sup>					
		$V_{CC} = 1.1$ V to 1.3 V	4.3	22.0	4.3	22.0	ns
		$V_{CC} = 1.4$ V to 1.6 V	3.7	12.0	3.7	12.5	ns
		$V_{CC} = 1.65$ V to 1.95 V	3.2	9.5	3.2	10.1	ns
		$V_{CC} = 2.3$ V to 2.7 V	2.9	6.8	2.9	7.3	ns
		$V_{CC} = 3.0$ V to 3.6 V	2.7	6.4	2.7	6.7	ns
$t_{dis}$	disable time	OE to Y; see <a href="#">Figure 9</a> <sup>[3]</sup>					
		$V_{CC} = 1.1$ V to 1.3 V	4.7	14.3	4.7	14.4	ns
		$V_{CC} = 1.4$ V to 1.6 V	3.0	10.7	3.0	11.0	ns
		$V_{CC} = 1.65$ V to 1.95 V	2.6	11.5	2.6	11.6	ns
		$V_{CC} = 2.3$ V to 2.7 V	2.3	9.0	2.3	10.2	ns
		$V_{CC} = 3.0$ V to 3.6 V	2.2	10.8	2.2	12.0	ns

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

[2]  $t_{en}$  is the same as  $t_{PZH}$  and  $t_{PZL}$ .

[3]  $t_{dis}$  is the same as  $t_{PHZ}$  and  $t_{PLZ}$ .

11.1 Waveforms and test circuit

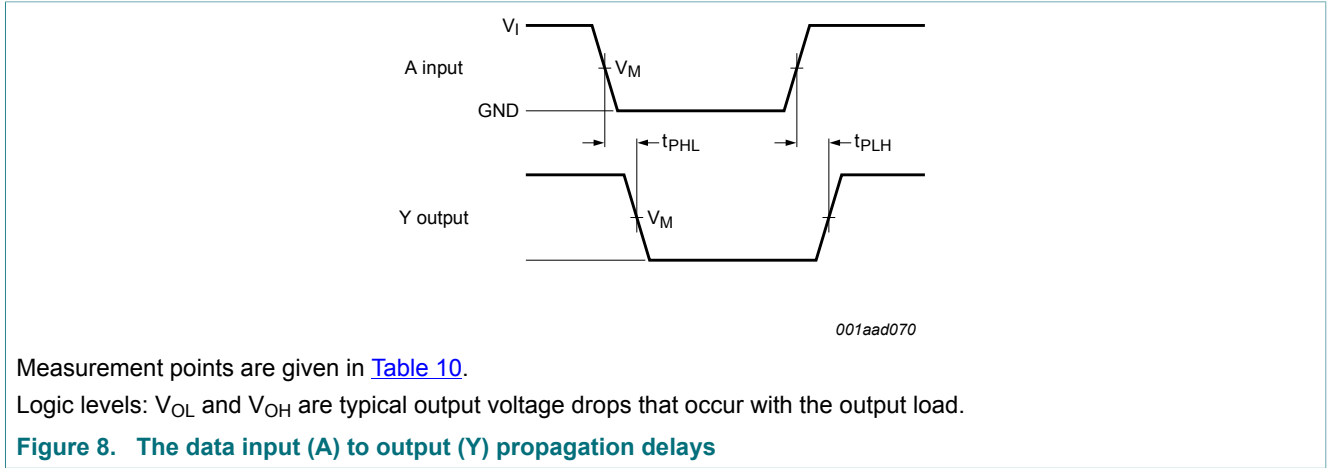


Table 10. Measurement points

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

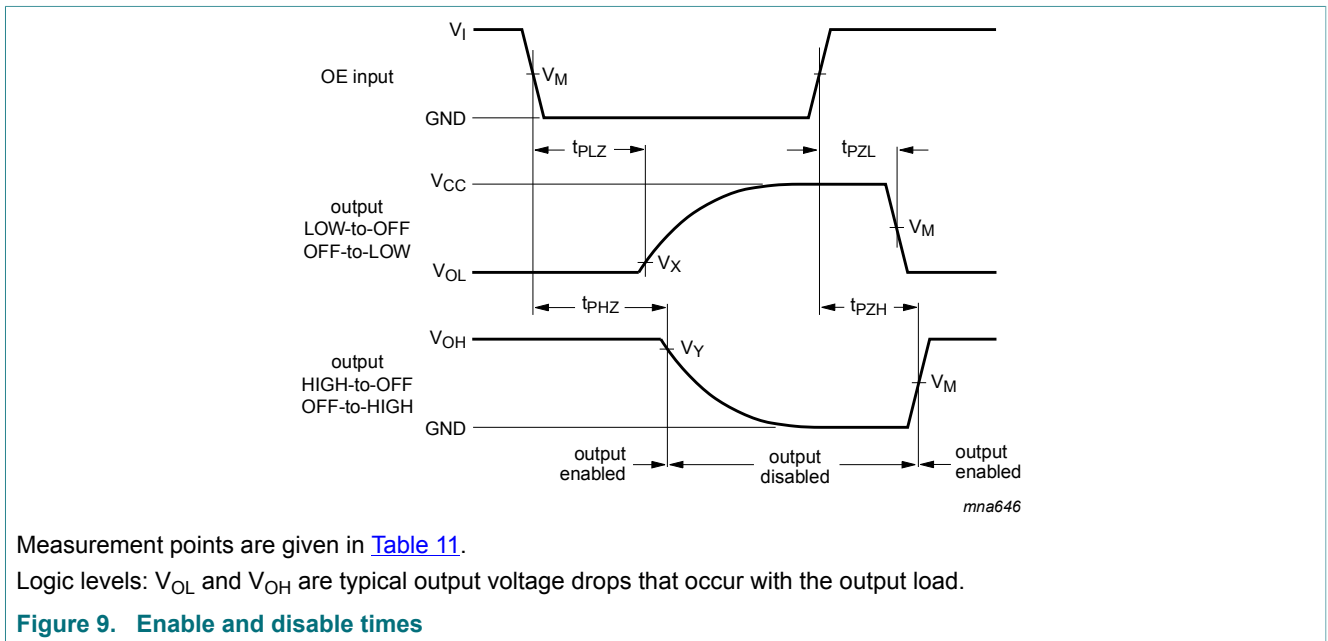
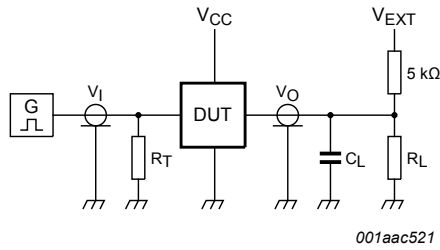


Table 11. Measurement points

Supply voltage	Input	Output		
$V_{CC}$	$V_M$	$V_M$	$V_X$	$V_Y$
0.8 V to 1.6 V	$0.5 \times V_{CC}$	$0.5 \times V_{CC}$	$V_{OL} + 0.1$ V	$V_{OH} - 0.1$ V
1.65 V to 2.7 V	$0.5 \times V_{CC}$	$0.5 \times V_{CC}$	$V_{OL} + 0.15$ V	$V_{OH} - 0.15$ V
3.0 V to 3.6 V	$0.5 \times V_{CC}$	$0.5 \times V_{CC}$	$V_{OL} + 0.3$ V	$V_{OH} - 0.3$ V





Test data is given in [Table 12](#).

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.

**Figure 10. Test circuit for measuring switching times**

**Table 12. Test data**

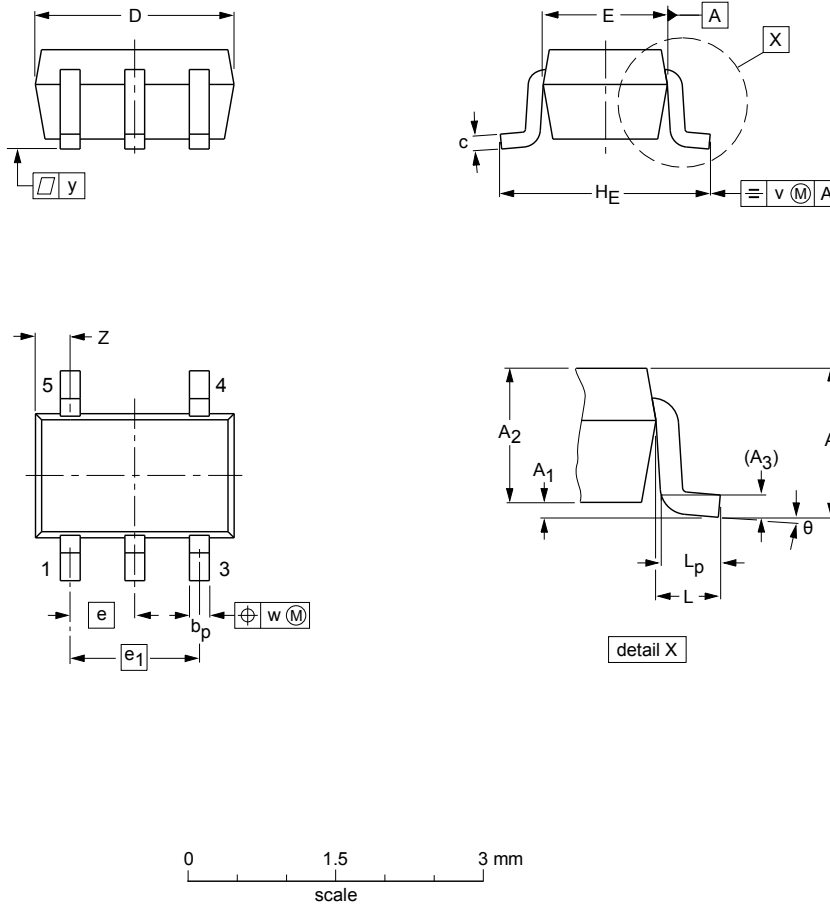
Supply voltage	Load		$V_{EXT}$		
$V_{CC}$	$C_L$	$R_L$ [1]	$t_{PLH}$ , $t_{PHL}$	$t_{PZH}$ , $t_{PHZ}$	$t_{PZL}$ , $t_{PLZ}$
0.8 V to 3.6 V	5 pF, 10 pF, 15 pF and 30 pF	5 kΩ or 1 MΩ	open	GND	$2 \times V_{CC}$

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

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>	A <sub>3</sub>	b <sub>p</sub>	c	D <sup>(1)</sup>	E <sup>(1)</sup>	e	e <sub>1</sub>	H <sub>E</sub>	L	L <sub>p</sub>	v	w	y	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°

Note

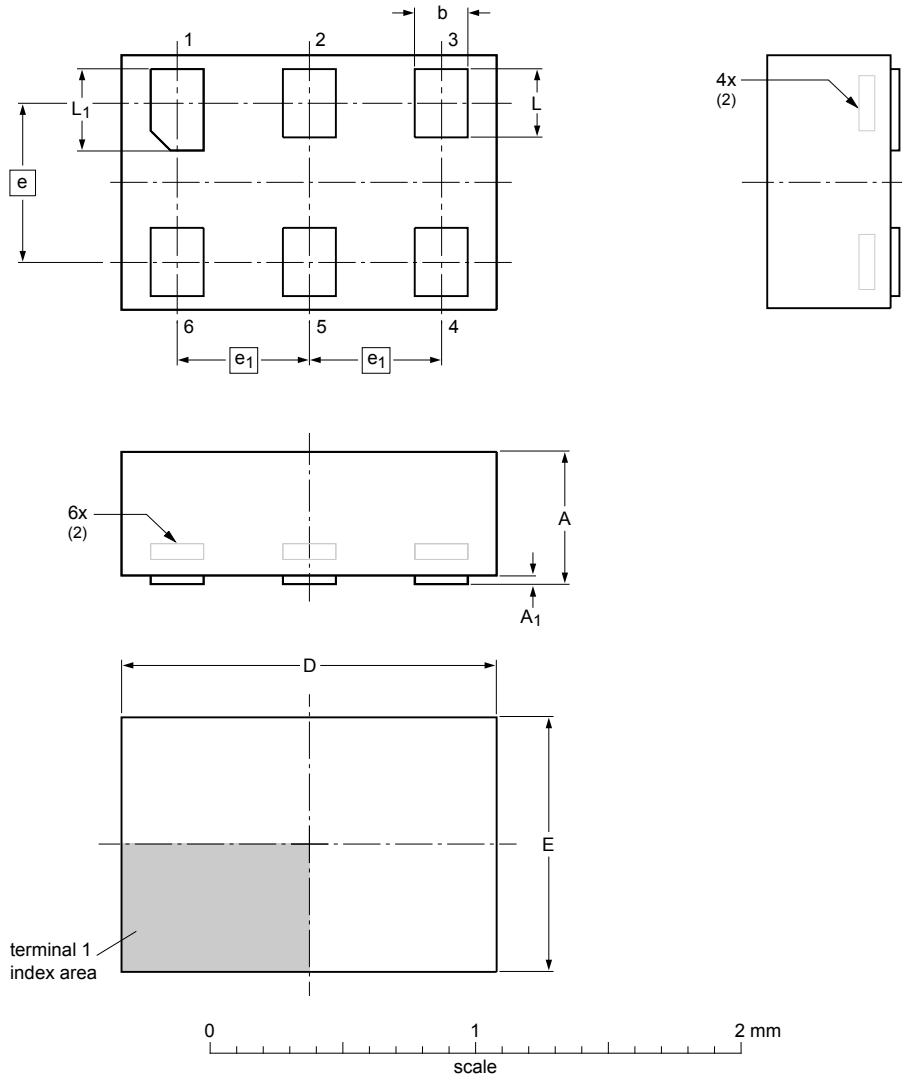
1. Plastic or metal protrusions of 0.15 mm maximum per side are not included.

OUTLINE VERSION	REFERENCES			EUROPEAN PROJECTION	ISSUE DATE
	IEC	JEDEC	JEITA		
SOT353-1		MO-203	SC-88A		00-09-01 03-02-19

Figure 11. Package outline SOT353-1 (TSSOP5)

XSON6: plastic extremely thin small outline package; no leads; 6 terminals; body 1 x 1.45 x 0.5 mm

SOT886



Dimensions (mm are the original dimensions)

Unit	A <sup>(1)</sup>	A <sub>1</sub>	b	D	E	e	e <sub>1</sub>	L	L <sub>1</sub>
max	0.5	0.04	0.25	1.50	1.05			0.35	0.40
nom			0.20	1.45	1.00	0.6	0.5	0.30	0.35
min			0.17	1.40	0.95			0.27	0.32

Notes

- Including plating thickness.
- Can be visible in some manufacturing processes.

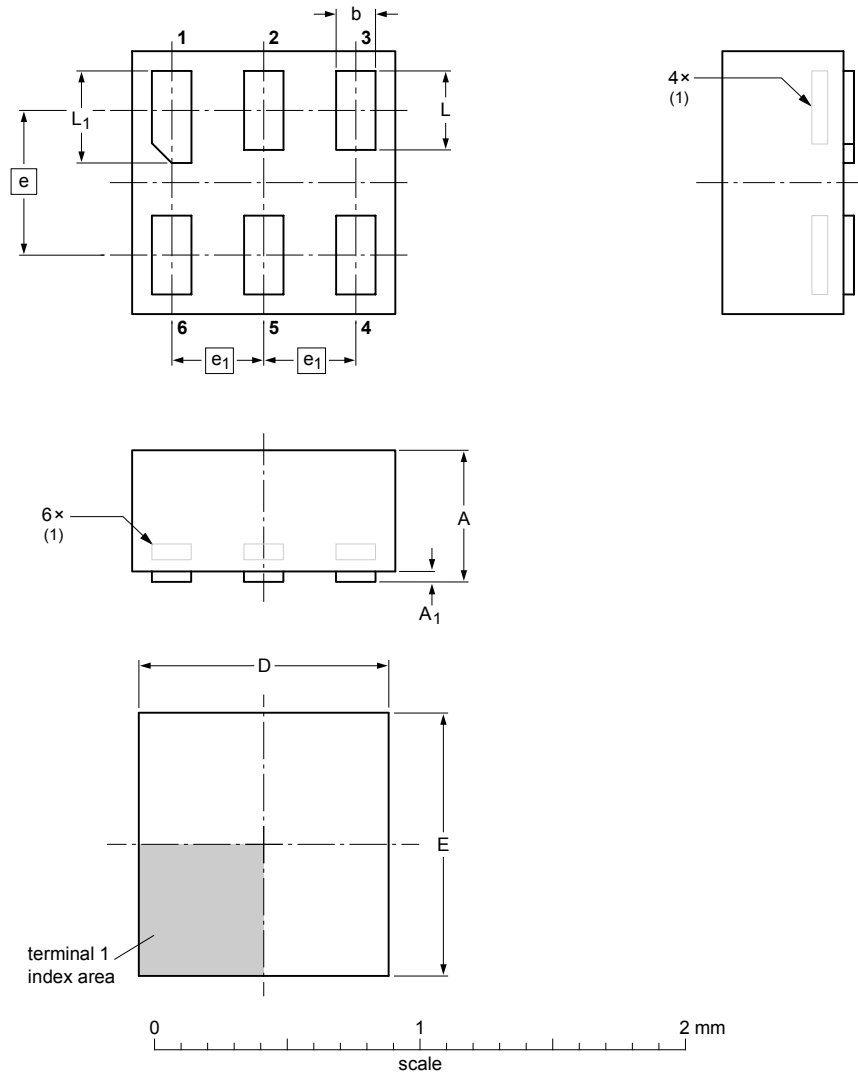
sot886\_po

Outline version	References			European projection	Issue date
	IEC	JEDEC	JEITA		
SOT886		MO-252			04-07-22 12-01-05

Figure 12. Package outline SOT886 (XSON6)

XSON6: plastic extremely thin small outline package; no leads; 6 terminals; body 1 x 1 x 0.5 mm

SOT891



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

UNIT	A max	A <sub>1</sub> max	b	D	E	e	e <sub>1</sub>	L	L <sub>1</sub>
mm	0.5	0.04	0.20 0.12	1.05 0.95	1.05 0.95	0.55	0.35	0.35 0.27	0.40 0.32

**Note**

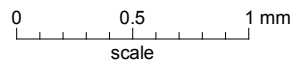
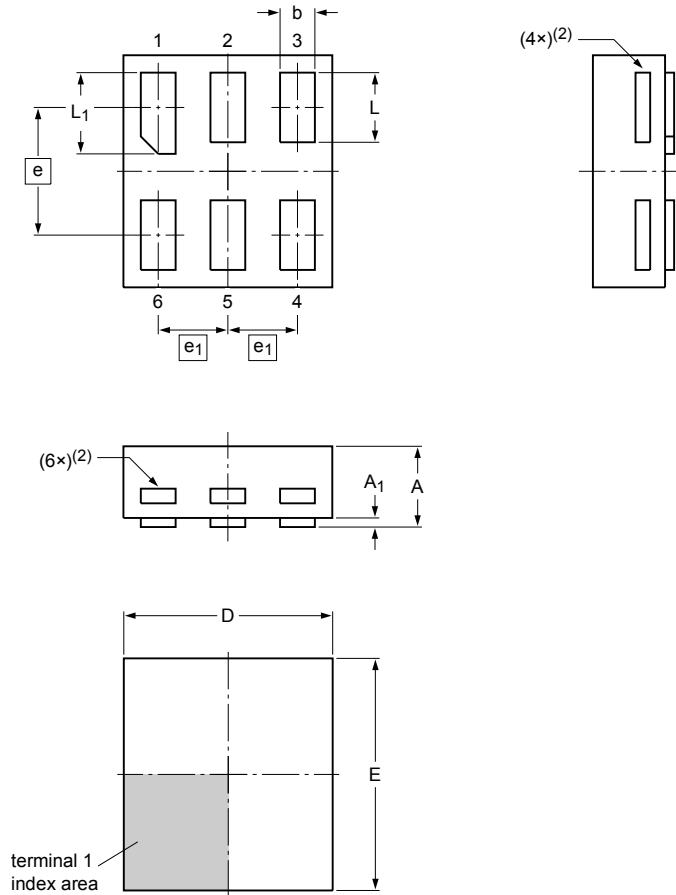
1. Can be visible in some manufacturing processes.

OUTLINE VERSION	REFERENCES			EUROPEAN PROJECTION	ISSUE DATE
	IEC	JEDEC	JEITA		
SOT891					-05-04-06 07-05-15

Figure 13. Package outline SOT891 (XSON6)

**XSON6: extremely thin small outline package; no leads;**  
**6 terminals; body 0.9 x 1.0 x 0.35 mm**

SOT1115



Dimensions

Unit	A <sup>(1)</sup>	A <sub>1</sub>	b	D	E	e	e <sub>1</sub>	L	L <sub>1</sub>
max	0.35	0.04	0.20	0.95	1.05			0.35	0.40
nom			0.15	0.90	1.00	0.55	0.3	0.30	0.35
min			0.12	0.85	0.95			0.27	0.32

Note

- Including plating thickness.
- Visible depending upon used manufacturing technology.

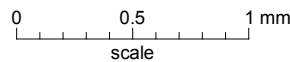
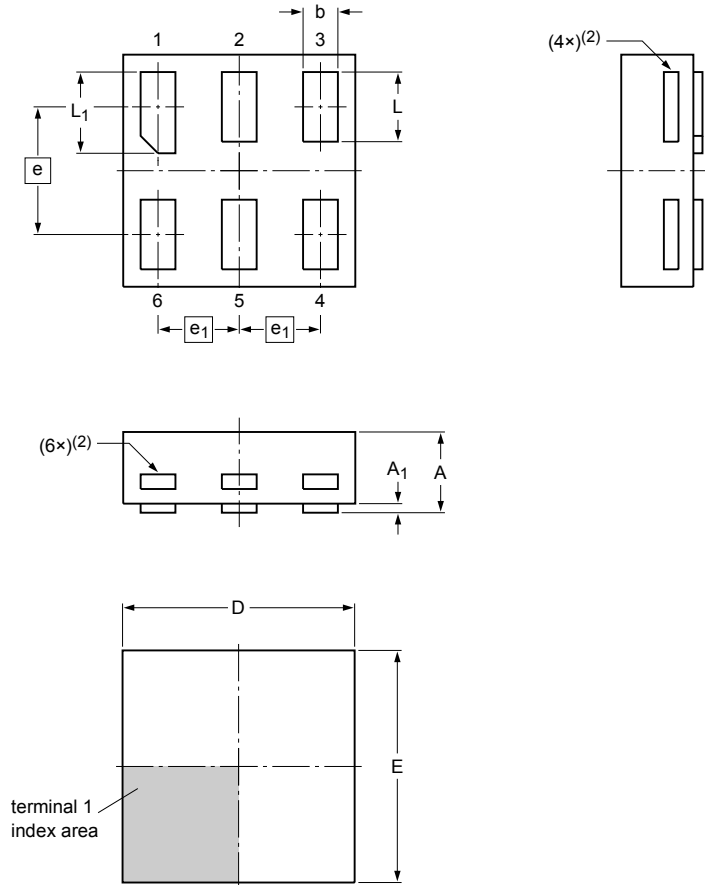
sot1115\_po

Outline version	References				European projection	Issue date
	IEC	JEDEC	JEITA			
SOT1115						-10-04-02- 10-04-07

Figure 14. Package outline SOT1115 (XSON6)

**XSON6: extremely thin small outline package; no leads;  
6 terminals; body 1.0 x 1.0 x 0.35 mm**

SOT1202



Dimensions

Unit	A <sup>(1)</sup>	A <sub>1</sub>	b	D	E	e	e <sub>1</sub>	L	L <sub>1</sub>
max	0.35	0.04	0.20	1.05	1.05			0.35	0.40
nom			0.15	1.00	1.00	0.55	0.35	0.30	0.35
min			0.12	0.95	0.95			0.27	0.32

Note

- Including plating thickness.
- Visible depending upon used manufacturing technology.

sot1202\_po

Outline version	References				European projection	Issue date
	IEC	JEDEC	JEITA			
SOT1202						-10-04-02- 10-04-06

Figure 15. Package outline SOT1202 (XSON6)

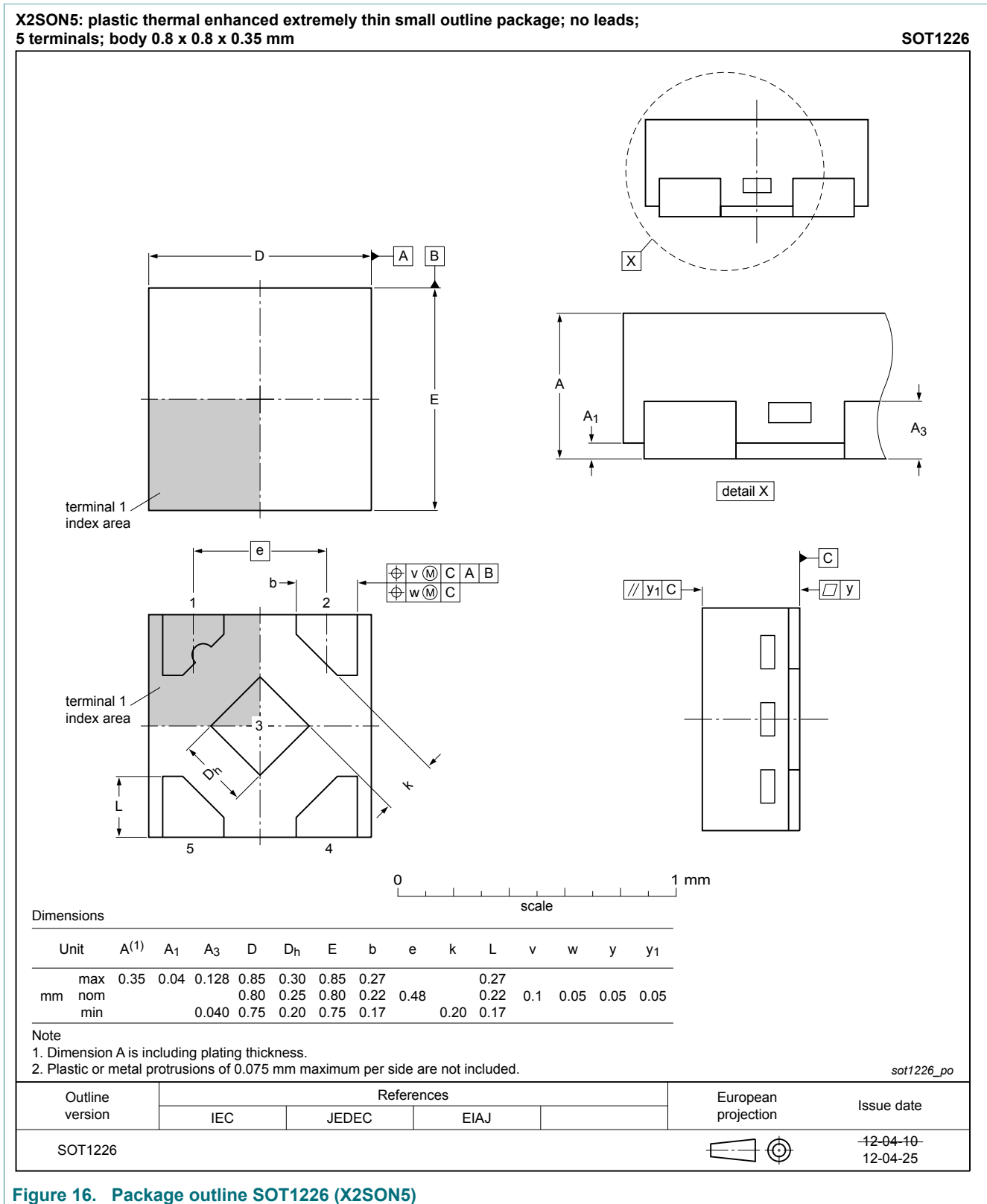


Figure 16. Package outline SOT1226 (X2SON5)

## 13 Abbreviations

Table 13. Abbreviations

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

## 14 Revision history

Table 14. Revision history

Document ID	Release date	Data sheet status	Change notice	Supersedes
74AUP1G126 v.7	20180516	Product data sheet	-	74AUP1G126 v.6
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> </ul>			
74AUP1G126 v.6	20151002	Product data sheet	-	74AUP1G126 v.5
Modifications:	<ul style="list-style-type: none"> <li>I<sub>OK</sub> minimum changed from -0.5 mA to -50 mA (errata) in <a href="#">Table 5.</a></li> </ul>			
74AUP1G126 v.5	20120628	Product data sheet	-	74AUP1G126 v.4
Modifications:	<ul style="list-style-type: none"> <li>Added type number 74AUP1G126GX (SOT1226)</li> <li>Package outline drawing of SOT886 (Figure 12) modified.</li> </ul>			
74AUP1G126 v.4	20111124	Product data sheet	-	74AUP1G126 v.3
74AUP1G126 v.3	20100903	Product data sheet	-	74AUP1G126 v.2
74AUP1G126 v.2	20060628	Product data sheet	-	74AUP1G126 v.1
74AUP1G126 v.1	20050725	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.

- [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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Date of release: 16 May 2018  
Document identifier: 74AUP1G126



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