# 74AHC1G126; 74AHCT1G126

## Bus buffer/line driver; 3-state

Rev. 8 — 23 August 2012 Product data sheet

## 1. General description

74AHC1G126 and 74AHCT1G126 are high-speed Si-gate CMOS devices. They provide one non-inverting buffer/line driver with 3-state output. The 3-state output is controlled by the output enable input pin (OE). A LOW at pin OE causes the output to assume a high-impedance OFF-state.

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

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

## 2. Features and benefits

- Symmetrical output impedance
- High noise immunity
- Low power dissipation
- Balanced propagation delays
- Multiple package options
- ESD protection:
  - HBM JESD22-A114F: exceeds 2000 V
  - MM JESD22-A115-A: exceeds 200 V
  - CDM JESD22-C101E: exceeds 1000 V
- Specified from −40 °C to +125 °C

## 3. Ordering information

**Table 1. Ordering information**

| Type number | Package | | | |
|---|---|---|---|---|
| | Temperature range | Name | Description | Version |
| 74AHC1G126GW | −40 °C to +125 °C | TSSOP5 | plastic thin shrink small outline package; 5 leads; body width 1.25 mm | SOT353-1 |
| 74AHCT1G126GW | | | | |
| 74AHC1G126GV | −40 °C to +125 °C | SC-74A | plastic surface-mounted package; 5 leads | SOT753 |
| 74AHCT1G126GV | | | | |
| 74AHC1G126GM | −40 °C to +125 °C | XSON6 | plastic extremely thin small outline package; no leads; 6 terminals; body 1 × 1.45 × 0.5 mm | SOT886 |
| 74AHCT1G126GM | | | | |
| 74AHC1G126GF | −40 °C to +125 °C | XSON6 | plastic extremely thin small outline package; no leads; 6 terminals; body 1 × 1 × 0.5 mm | SOT891 |
| 74AHCT1G126GF | | | | |

# 4. Marking

**Table 2. Marking codes**

| Type number | Marking[1] |
|---|---|
| 74AHC1G126GW | AN |
| 74AHCT1G126GW | CN |
| 74AHC1G126GV | A26 |
| 74AHCT1G126GV | C26 |
| 74AHC1G126GM | AN |
| 74AHCT1G126GM | CN |
| 74AHC1G126GF | AN |
| 74AHCT1G126GF | CN |

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

# 5. Functional diagram

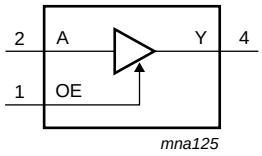



**Fig 1. Logic symbol**

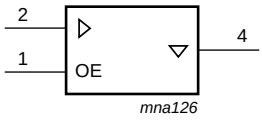



**Fig 2. IEC logic symbol**

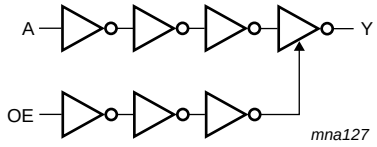



**Fig 3. Logic diagram**

# 6. Pinning information

## 6.1 Pinning

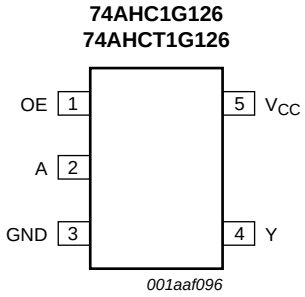
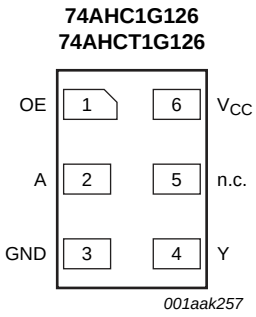
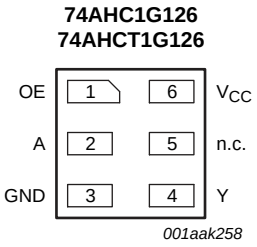



**Fig 4. Pin configuration SOT353-1 and SOT753**




Transparent top view

**Fig 5. Pin configuration SOT886**




Transparent top view

**Fig 6. Pin configuration SOT891**

### 6.2 Pin description

**Table 3. Pin description**

| Symbol | Pin | | Description |
|---|---|---|---|
| | SOT353-1/SOT753 | SOT886/SOT891 | |
| OE | 1 | 1 | output enable input |
| A | 2 | 2 | data input A |
| GND | 3 | 3 | ground (0 V) |
| Y | 4 | 4 | data output Y |
| n.c. | - | 5 | not connected |
| $V_{CC}$ | 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 | +7.0 | V |
| $V_I$ | input voltage | | | −0.5 | +7.0 | V |
| $I_{IK}$ | input clamping current | $V_I < -0.5$ V | [1] | −20 | - | mA |
| $I_{OK}$ | output clamping current | $V_O < -0.5$ V or $V_O > V_{CC} + 0.5$ V | [1] | - | ±20 | mA |
| $I_O$ | output current | $-0.5$ V $< V_O < V_{CC} + 0.5$ V | | - | ±25 | mA |
| $I_{CC}$ | supply current | | | - | 75 | mA |
| $I_{GND}$ | ground current | | | −75 | - | mA |
| $T_{stg}$ | storage temperature | | | −65 | +150 | °C |
| $P_{tot}$ | total power dissipation | $T_{amb} = -40$ °C to +125 °C | [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 and SC-74A packages: above 87.5 °C the value of $P_{tot}$ derates linearly with 4.0 mW/K.
For XSON6 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**

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

| Symbol | Parameter | Conditions | 74AHC1G126 | | | 74AHCT1G126 | | | Unit |
|---|---|---|---|---|---|---|---|---|---|
| | | | Min | Typ | Max | Min | Typ | Max | |
| $V_{CC}$ | supply voltage | | 2.0 | 5.0 | 5.5 | 4.5 | 5.0 | 5.5 | V |
| $V_I$ | input voltage | | 0 | - | 5.5 | 0 | - | 5.5 | V |
| $V_O$ | output voltage | | 0 | - | $V_{CC}$ | 0 | - | $V_{CC}$ | V |
| $T_{amb}$ | ambient temperature | | −40 | +25 | +125 | −40 | +25 | +125 | °C |
| $\Delta t/\Delta V$ | input transition rise and fall rate | $V_{CC}$ = 3.3 V ± 0.3 V | - | - | 100 | - | - | - | ns/V |
| | | $V_{CC}$ = 5.0 V ± 0.5 V | - | - | 20 | - | - | 20 | ns/V |

## 10. Static characteristics

**Table 7. Static characteristics**

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

| Symbol | Parameter | Conditions | 25 °C | | | −40 °C to +85 °C | | −40 °C to +125 °C | | Unit |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Min | Typ | Max | Min | Max | Min | Max | |
| **74AHC1G126** | | | | | | | | | | |
| $V_{IH}$ | HIGH-level input voltage | $V_{CC}$ = 2.0 V | 1.5 | - | - | 1.5 | - | 1.5 | - | V |
| | | $V_{CC}$ = 3.0 V | 2.1 | - | - | 2.1 | - | 2.1 | - | V |
| | | $V_{CC}$ = 5.5 V | 3.85 | - | - | 3.85 | - | 3.85 | - | V |
| $V_{IL}$ | LOW-level input voltage | $V_{CC}$ = 2.0 V | - | - | 0.5 | - | 0.5 | - | 0.5 | V |
| | | $V_{CC}$ = 3.0 V | - | - | 0.9 | - | 0.9 | - | 0.9 | V |
| | | $V_{CC}$ = 5.5 V | - | - | 1.65 | - | 1.65 | - | 1.65 | V |
| $V_{OH}$ | HIGH-level output voltage | $V_I$ = $V_{IH}$ or $V_{IL}$ | | | | | | | | |
| | | $I_O$ = −50 μA; $V_{CC}$ = 2.0 V | 1.9 | 2.0 | - | 1.9 | - | 1.9 | - | V |
| | | $I_O$ = −50 μA; $V_{CC}$ = 3.0 V | 2.9 | 3.0 | - | 2.9 | - | 2.9 | - | V |
| | | $I_O$ = −50 μA; $V_{CC}$ = 4.5 V | 4.4 | 4.5 | - | 4.4 | - | 4.4 | - | V |
| | | $I_O$ = −4.0 mA; $V_{CC}$ = 3.0 V | 2.58 | - | - | 2.48 | - | 2.40 | - | V |
| | | $I_O$ = −8.0 mA; $V_{CC}$ = 4.5 V | 3.94 | - | - | 3.8 | - | 3.70 | - | V |
| $V_{OL}$ | LOW-level output voltage | $V_I$ = $V_{IH}$ or $V_{IL}$ | | | | | | | | |
| | | $I_O$ = 50 μA; $V_{CC}$ = 2.0 V | - | 0 | 0.1 | - | 0.1 | - | 0.1 | V |
| | | $I_O$ = 50 μA; $V_{CC}$ = 3.0 V | - | 0 | 0.1 | - | 0.1 | - | 0.1 | V |
| | | $I_O$ = 50 μA; $V_{CC}$ = 4.5 V | - | 0 | 0.1 | - | 0.1 | - | 0.1 | V |
| | | $I_O$ = 4.0 mA; $V_{CC}$ = 3.0 V | - | - | 0.36 | - | 0.44 | - | 0.55 | V |
| | | $I_O$ = 8.0 mA; $V_{CC}$ = 4.5 V | - | - | 0.36 | - | 0.44 | - | 0.55 | V |
| $I_{OZ}$ | OFF-state output current | $V_I$ = $V_{IH}$ or $V_{IL}$; $V_O$ = $V_{CC}$ or GND; $V_{CC}$ = 5.5 V | - | - | ±0.25 | - | ±2.5 | - | ±10 | μA |
| $I_I$ | input leakage current | $V_I$ = 5.5 V or GND; $V_{CC}$ = 0 V to 5.5 V | - | - | 0.1 | - | 1.0 | - | 2.0 | μA |
| $I_{CC}$ | supply current | $V_I$ = $V_{CC}$ or GND; $I_O$ = 0 A; $V_{CC}$ = 5.5 V | - | - | 2.0 | - | 20 | - | 40 | μA |

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

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

| Symbol | Parameter | Conditions | 25 °C | | | –40 °C to +85 °C | | –40 °C to +125 °C | | Unit |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Min | Typ | Max | Min | Max | Min | Max | |
| $C_I$ | input capacitance | | - | 3 | 10 | - | 10 | - | 10 | pF |
| **74AHCT1G126** | | | | | | | | | | |
| $V_{IH}$ | HIGH-level input voltage | $V_{CC}$ = 4.5 V to 5.5 V | 2.0 | - | - | 2.0 | - | 2.0 | - | V |
| $V_{IL}$ | LOW-level input voltage | $V_{CC}$ = 4.5 V to 5.5 V | - | - | 0.8 | - | 0.8 | - | 0.8 | V |
| $V_{OH}$ | HIGH-level output voltage | $V_I$ = $V_{IH}$ or $V_{IL}$; $V_{CC}$ = 4.5 V | | | | | | | | |
| | | $I_O$ = –50 μA | 4.4 | 4.5 | - | 4.4 | - | 4.4 | - | V |
| | | $I_O$ = –8.0 mA | 3.94 | - | - | 3.8 | - | 3.70 | - | V |
| $V_{OL}$ | LOW-level output voltage | $V_I$ = $V_{IH}$ or $V_{IL}$; $V_{CC}$ = 4.5 V | | | | | | | | |
| | | $I_O$ = 50 μA | - | 0 | 0.1 | - | 0.1 | - | 0.1 | V |
| | | $I_O$ = 8.0 mA | - | - | 0.36 | - | 0.44 | - | 0.55 | V |
| $I_{OZ}$ | OFF-state output current | $V_I$ = $V_{IH}$ or $V_{IL}$; $V_O$ = $V_{CC}$ or GND; $V_{CC}$ = 5.5 V | - | - | ±0.25 | - | ±2.5 | - | ±10 | μA |
| $I_I$ | input leakage current | $V_I$ = 5.5 V or GND; $V_{CC}$ = 0 V to 5.5 V | - | - | 0.1 | - | 1.0 | - | 2.0 | μA |
| $I_{CC}$ | supply current | $V_I$ = $V_{CC}$ or GND; $I_O$ = 0 A; $V_{CC}$ = 5.5 V | - | - | 2.0 | - | 20 | - | 40 | μA |
| $\Delta I_{CC}$ | additional supply current | per input pin; $V_I$ = $V_{CC}$ – 2.1 V; other inputs at $V_{CC}$ or GND; $I_O$ = 0 A; $V_{CC}$ = 4.5 V to 5.5 V | - | - | 1.35 | - | 1.5 | - | 1.5 | mA |
| $C_I$ | input capacitance | | - | 3 | 10 | - | 10 | - | 10 | pF |

## 11. Dynamic characteristics

**Table 8. Dynamic characteristics**

*GND = 0 V; For test circuit see Figure 9.*

| Symbol | Parameter | Conditions | | 25 °C | | | –40 °C to +85 °C | | –40 °C to +125 °C | | Unit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Min | Typ | Max | Min | Max | Min | Max | |
| **74AHC1G126** | | | | | | | | | | | |
| $t_{pd}$ | propagation delay | A to Y; see Figure 7 | [1] | | | | | | | | |
| | | $V_{CC}$ = 3.0 V to 3.6 V | [2] | | | | | | | | |
| | | $C_L$ = 15 pF | | - | 4.4 | 8.0 | 1.0 | 9.5 | 1.0 | 10.0 | ns |
| | | $C_L$ = 50 pF | | - | 6.3 | 11.5 | 1.0 | 13.0 | 1.0 | 14.5 | ns |
| | | $V_{CC}$ = 4.5 V to 5.5 V | [3] | | | | | | | | |
| | | $C_L$ = 15 pF | | - | 3.4 | 5.5 | 1.0 | 6.5 | 1.0 | 7.0 | ns |
| | | $C_L$ = 50 pF | | - | 4.7 | 7.5 | 1.0 | 8.5 | 1.0 | 9.5 | ns |

**Table 8. Dynamic characteristics** *…continued*

*GND = 0 V; For test circuit see Figure 9.*

| Symbol | Parameter | Conditions | | 25 °C | | | –40 °C to +85 °C | | –40 °C to +125 °C | | Unit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Min | Typ | Max | Min | Max | Min | Max | |
| $t_{en}$ | enable time | OE to Y; see Figure 8 | [1] | | | | | | | | |
| | | $V_{CC}$ = 3.0 V to 3.6 V | [2] | | | | | | | | |
| | | $C_L$ = 15 pF | | - | 4.9 | 8.0 | 1.0 | 9.5 | 1.0 | 10.0 | ns |
| | | $C_L$ = 50 pF | | - | 7.0 | 11.5 | 1.0 | 13.0 | 1.0 | 14.5 | ns |
| | | $V_{CC}$ = 4.5 V to 5.5 V | [3] | | | | | | | | |
| | | $C_L$ = 15 pF | | - | 3.6 | 5.6 | 1.0 | 6.3 | 1.0 | 7.0 | ns |
| | | $C_L$ = 50 pF | | - | 5.4 | 8.0 | 1.0 | 9.0 | 1.0 | 9.5 | ns |
| $t_{dis}$ | disable time | OE to Y; see Figure 8 | [1] | | | | | | | | |
| | | $V_{CC}$ = 3.0 V to 3.6 V | [2] | | | | | | | | |
| | | $C_L$ = 15 pF | | - | 6.3 | 9.7 | 1.0 | 11.5 | 1.0 | 12.5 | ns |
| | | $C_L$ = 50 pF | | - | 9.0 | 13.2 | 1.0 | 15.0 | 1.0 | 16.5 | ns |
| | | $V_{CC}$ = 4.5 V to 5.5 V | [3] | | | | | | | | |
| | | $C_L$ = 15 pF | | - | 4.3 | 6.8 | 1.0 | 8.0 | 1.0 | 8.5 | ns |
| | | $C_L$ = 50 pF | | - | 6.1 | 8.8 | 1.0 | 10.0 | 1.0 | 11.0 | ns |
| $C_{PD}$ | power dissipation capacitance | per buffer; $C_L$ = 50 pF; f = 1 MHz; $V_I$ = GND to $V_{CC}$ | [4] | - | 9 | - | - | - | - | - | pF |
| **74AHCT1G126** | | | | | | | | | | | |
| $t_{pd}$ | propagation delay | A to Y; see Figure 7 | [1] | | | | | | | | |
| | | $V_{CC}$ = 4.5 V to 5.5 V | [3] | | | | | | | | |
| | | $C_L$ = 15 pF | | - | 3.4 | 5.5 | 1.0 | 6.5 | 1.0 | 7.0 | ns |
| | | $C_L$ = 50 pF | | - | 4.7 | 7.5 | 1.0 | 8.5 | 1.0 | 9.5 | ns |
| $t_{en}$ | enable time | $\overline{OE}$ to Y; see Figure 8 | [1] | | | | | | | | |
| | | $V_{CC}$ = 4.5 V to 5.5 V | [3] | | | | | | | | |
| | | $C_L$ = 15 pF | | - | 3.4 | 5.6 | 1.0 | 6.3 | 1.0 | 6.5 | ns |
| | | $C_L$ = 50 pF | | - | 4.8 | 8.0 | 1.0 | 9.0 | 1.0 | 9.0 | ns |
| $t_{dis}$ | disable time | $\overline{OE}$ to Y; see Figure 8 | [1] | | | | | | | | |
| | | $V_{CC}$ = 4.5 V to 5.5 V | [3] | | | | | | | | |
| | | $C_L$ = 15 pF | | | 4.0 | 6.8 | 1.0 | 8.0 | 1.0 | 8.5 | ns |
| | | $C_L$ = 50 pF | | | 5.7 | 8.8 | 1.0 | 10.0 | 1.0 | 11.5 | ns |

**Table 8. Dynamic characteristics** *…continued*

*GND = 0 V; For test circuit see Figure 9.*

| Symbol | Parameter | Conditions | | 25 °C | | | –40 °C to +85 °C | | –40 °C to +125 °C | | Unit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Min | Typ | Max | Min | Max | Min | Max | |
| $C_{PD}$ | power dissipation capacitance | per buffer; $C_L$ = 50 pF; f = 1 MHz; $V_I$ = GND to $V_{CC}$ | [4] | - | 11 | - | - | - | - | - | pF |

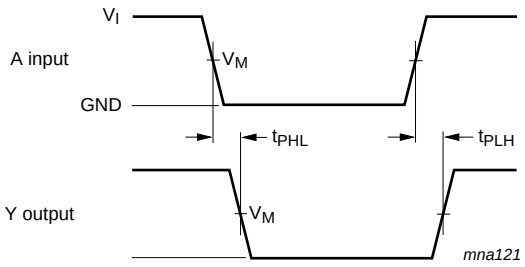
[1] $t_{pd}$ is the same as $t_{PLH}$ and $t_{PHL}$.
$t_{en}$ is the same as $t_{PZL}$ and $t_{PZH}$.
$t_{dis}$ is the same as $t_{PLZ}$ and $t_{PHZ}$.

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

[3] Typical values are measured at $V_{CC}$ = 5.0 V.

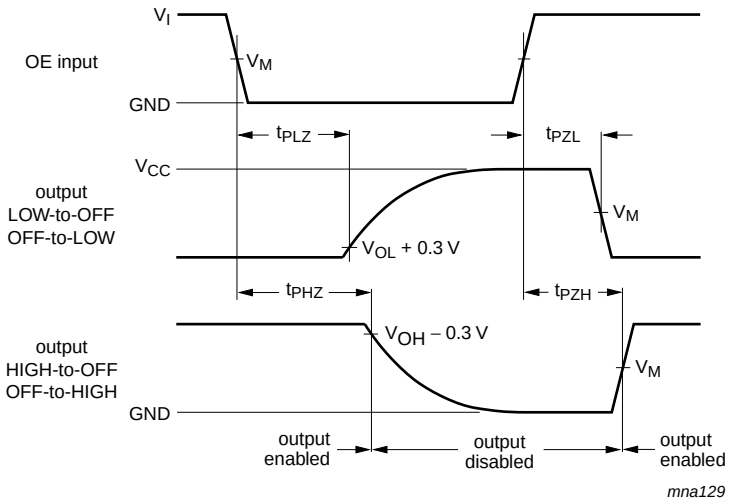
[4] $C_{PD}$ is used to determine the dynamic power dissipation $P_D$ (μW).
$P_D = C_{PD} \times V_{CC}^2 \times f_i + \Sigma(C_L \times V_{CC}^2 \times f_o)$ where:
$f_i$ = input frequency in MHz;
$f_o$ = output frequency in MHz;
$C_L$ = output load capacitance in pF;
$V_{CC}$ = supply voltage in Volts.

## 12. Waveforms




Measurement points are given in Table 9.

**Fig 7. Input (A) to output (Y) propagation delays**

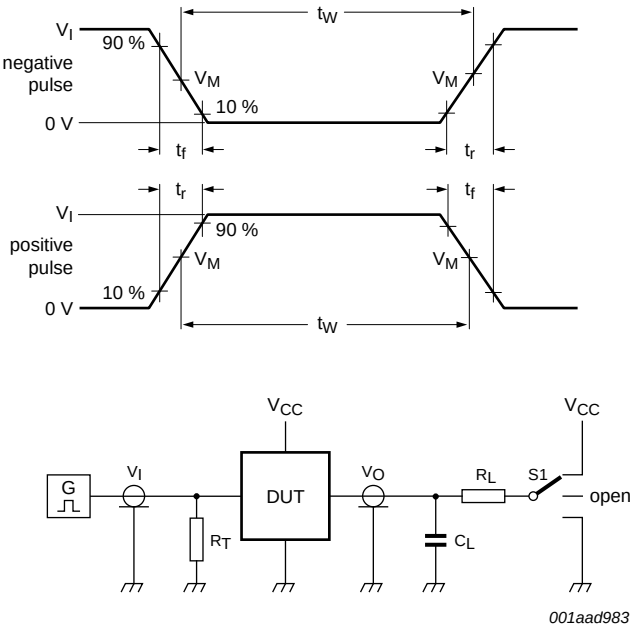



Measurement points are given in Table 9.

**Fig 8. enable and disable times**

**Table 9. Measurement points**

| Type | Input | | Output |
|---|---|---|---|
| | $V_M$ | $V_I$ | $V_M$ |
| 74AHC1G126 | 0.5 × $V_{CC}$ | GND to $V_{CC}$ | 0.5 × $V_{CC}$ |
| 74AHCT1G126 | 1.5 V | GND to 3.0 V | 0.5 × $V_{CC}$ |




Test data is given in Table 10.

Definitions test circuit:

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

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

$R_L$ = Load resistance.

S1 = Test selection switch.

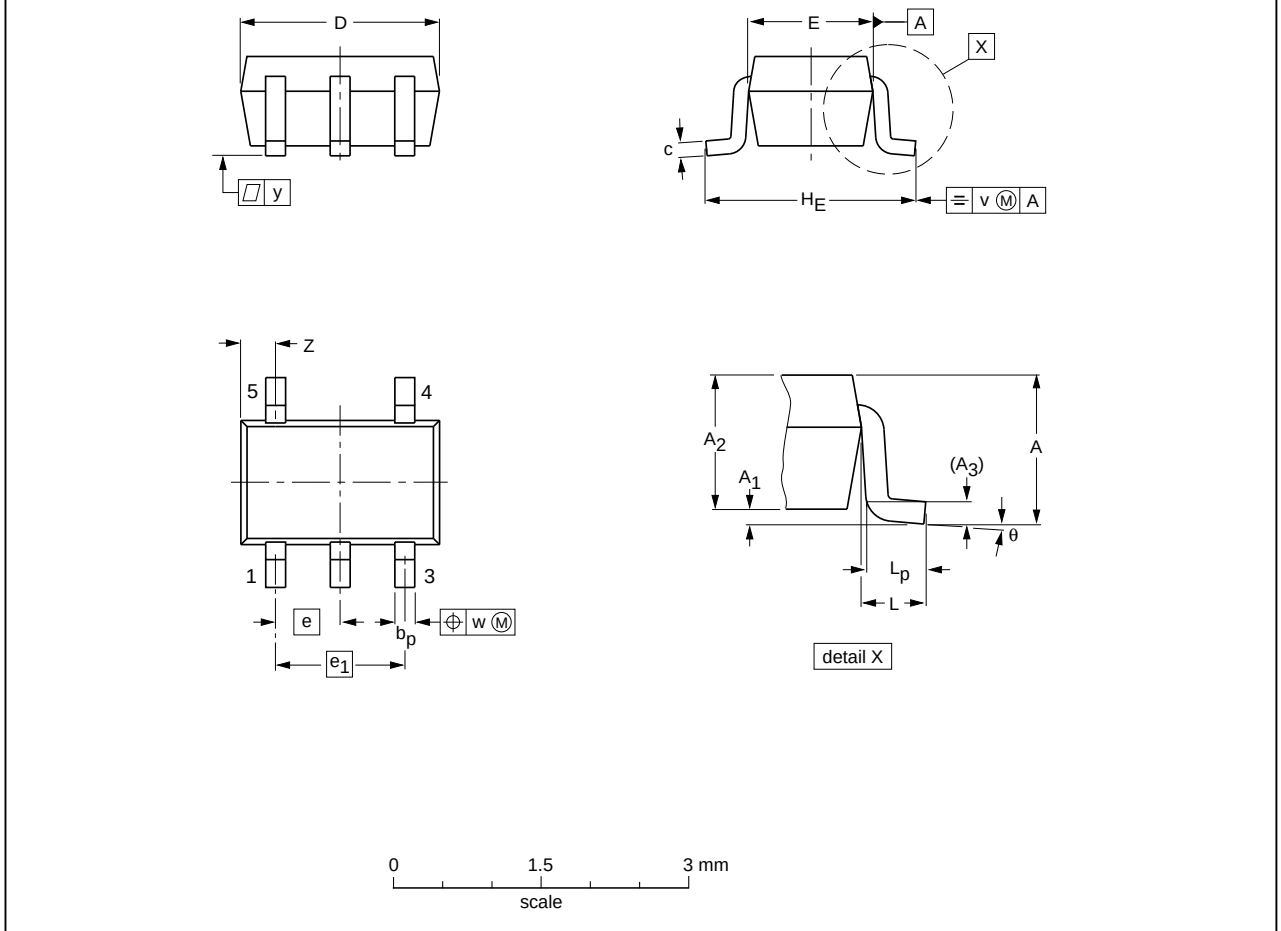
**Fig 9. Test circuit for measuring switching times**

**Table 10. Test data**

| Type | Input | | Load | | S1 position | | |
|---|---|---|---|---|---|---|---|
| | $V_I$ | $t_r$, $t_f$ | $C_L$ | $R_L$ | $t_{PHL}$, $t_{PLH}$ | $t_{PZH}$, $t_{PHZ}$ | $t_{PZL}$, $t_{PLZ}$ |
| 74AHC1G126 | $V_{CC}$ | ≤ 3 ns | 15 pF, 50 pF | 1 kΩ | open | GND | $V_{CC}$ |
| 74AHCT1G126 | 3 V | ≤ 3 ns | 15 pF, 50 pF | 1 kΩ | open | GND | $V_{CC}$ |

## 13. 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. | $A_1$ | $A_2$ | $A_3$ | $b_p$ | c | $D^{(1)}$ | $E^{(1)}$ | e | $e_1$ | $H_E$ | L | $L_p$ | v | w | y | $Z^{(1)}$ | θ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| mm | 1.1 | 0.1<br>0 | 1.0<br>0.8 | 0.15 | 0.30<br>0.15 | 0.25<br>0.08 | 2.25<br>1.85 | 1.35<br>1.15 | 0.65 | 1.3 | 2.25<br>2.0 | 0.425 | 0.46<br>0.21 | 0.3 | 0.1 | 0.1 | 0.60<br>0.15 | 7°<br>0° |

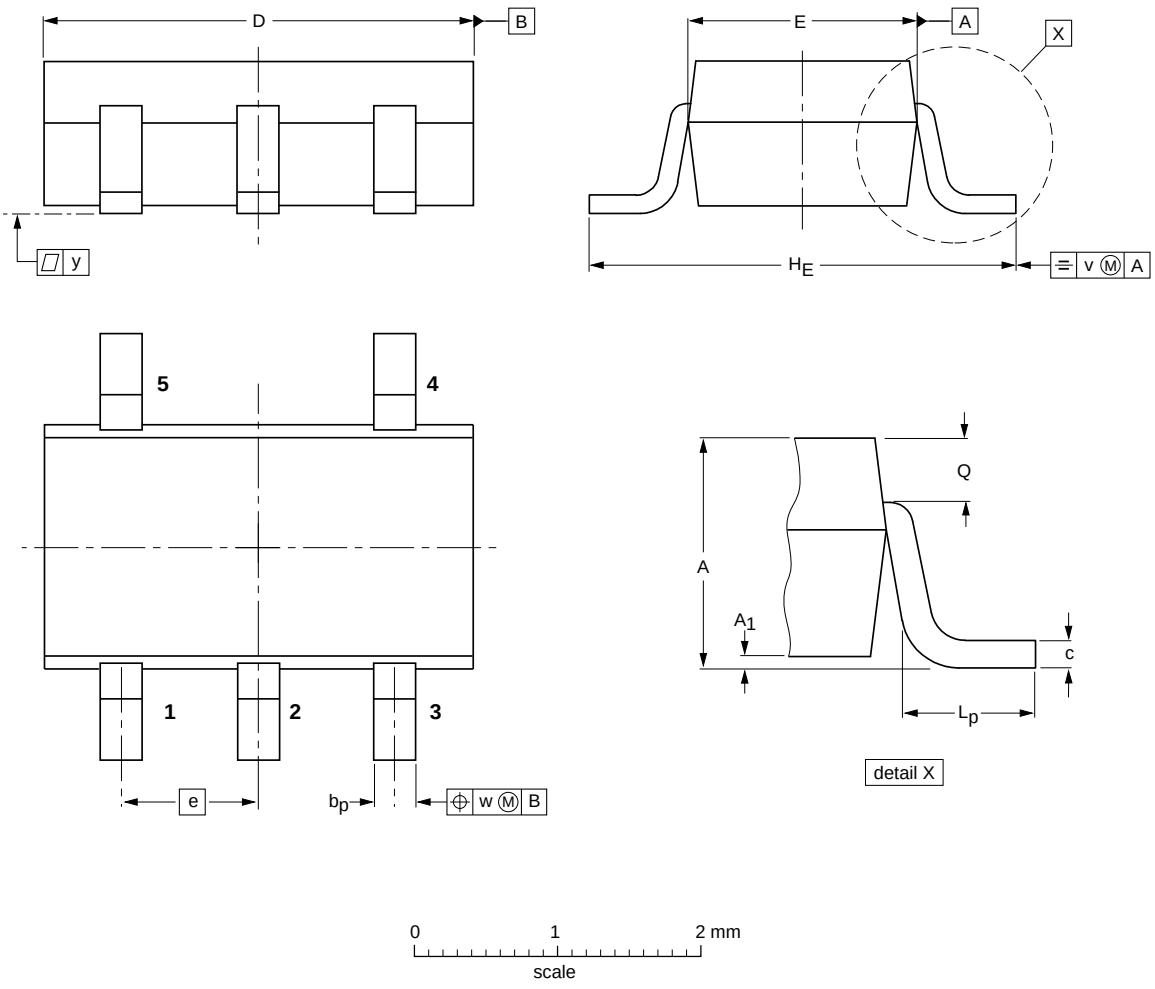
**Note**

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

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

**Fig 10. Package outline SOT353-1 (TSSOP5)**

**Plastic surface-mounted package; 5 leads** **SOT753**



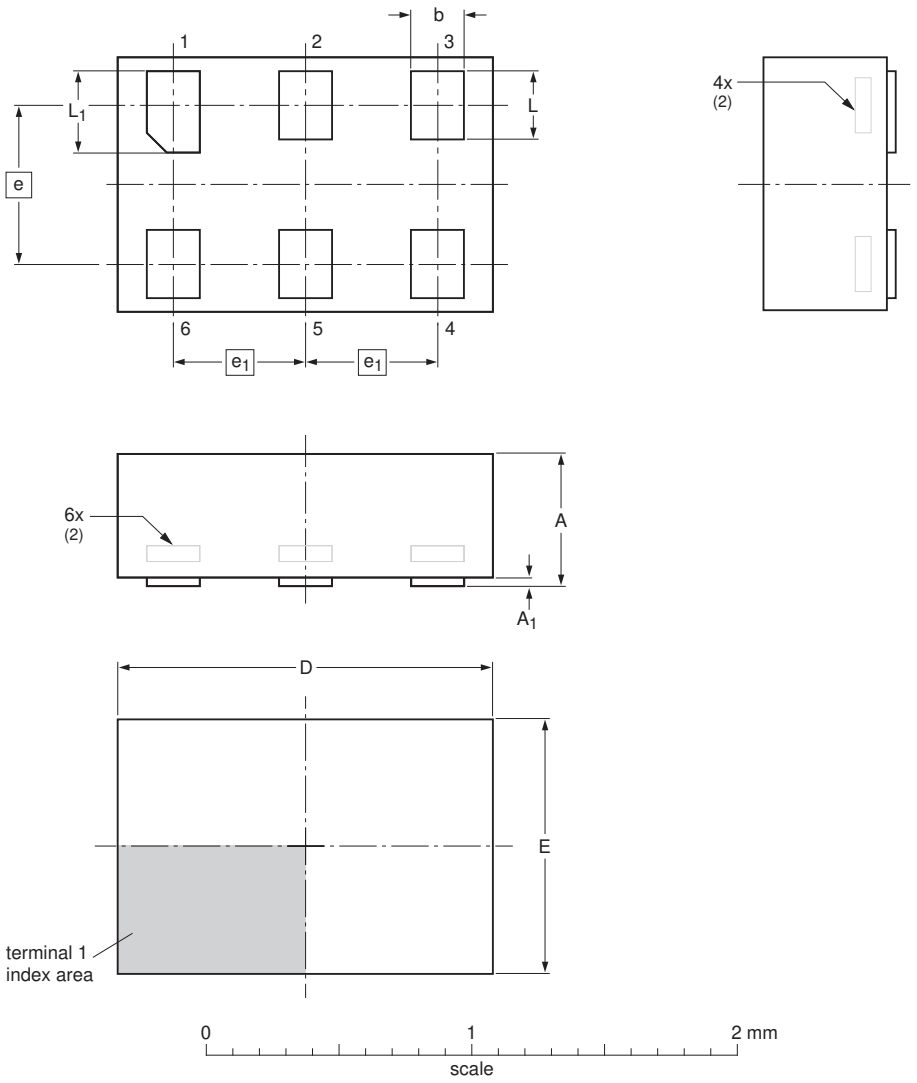

**DIMENSIONS (mm are the original dimensions)**

| UNIT | A | $A_1$ | $b_p$ | c | D | E | e | $H_E$ | $L_p$ | Q | v | w | y |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| mm | 1.1<br>0.9 | 0.100<br>0.013 | 0.40<br>0.25 | 0.26<br>0.10 | 3.1<br>2.7 | 1.7<br>1.3 | 0.95 | 3.0<br>2.5 | 0.6<br>0.2 | 0.33<br>0.23 | 0.2 | 0.2 | 0.1 |

| OUTLINE VERSION | REFERENCES | | | | EUROPEAN PROJECTION | ISSUE DATE |
|---|---|---|---|---|---|---|
| | IEC | JEDEC | JEITA | | | |
| SOT753 | | | SC-74A | | | ~~02-04-16~~<br>06-03-16 |

**Fig 11. Package outline SOT753 (SC-74A)**

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(1) | A1 | b | D | E | e | e1 | L | L1 |
|---|---|---|---|---|---|---|---|---|---|---|
| mm | 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 |

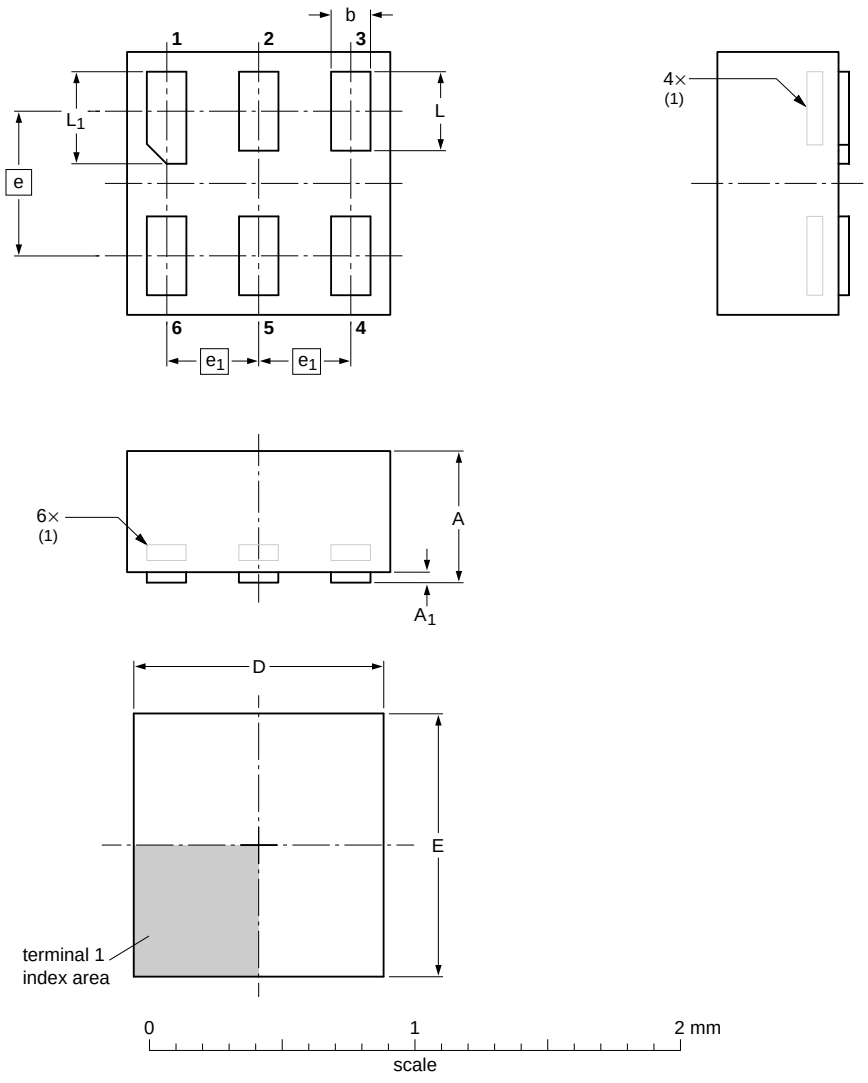
Notes
1. Including plating thickness.
2. Can be visible in some manufacturing processes.

sot886_po

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

**Fig 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 | $A_1$ max | b | D | E | e | $e_1$ | L | $L_1$ |
|---|---|---|---|---|---|---|---|---|---|
| mm | 0.5 | 0.04 | 0.20<br>0.12 | 1.05<br>0.95 | 1.05<br>0.95 | 0.55 | 0.35 | 0.35<br>0.27 | 0.40<br>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~~<br>07-05-15 |

**Fig 13. Package outline SOT891 (XSON6)**

## 14. Abbreviations

**Table 11. Abbreviations**

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

## 15. Revision history

**Table 12. Revision history**

| Document ID | Release date | Data sheet status | Change notice | Supersedes |
|---|---|---|---|---|
| 74AHC_AHCT1G126 v.8 | 20120823 | Product data sheet | - | 74AHC_AHCT1G126 v.7 |
| Modifications: | • Package outline drawing of SOT886 (Figure 12) modified. | | | |
| 74AHC_AHCT1G126 v.7 | 20090617 | Product data sheet | - | 74AHC_AHCT1G126 v.6 |
| 74AHC_AHCT1G126 v.6 | 20070525 | Product data sheet | - | 74AHC_AHCT1G126 v.5 |
| 74AHC_AHCT1G126 v.5 | 20070514 | Product data sheet | - | 74AHC_AHCT1G126 v.4 |
| 74AHC_AHCT1G126 v.4 | 20020606 | Product specification | - | 74AHC_AHCT1G126 v.3 |
| 74AHC_AHCT1G126 v.3 | 20020215 | Product specification | - | 74AHC_AHCT1G126 v.2 |
| 74AHC_AHCT1G126 v.2 | 20010406 | Product specification | - | 74AHC1G_AHCT1G126 v.1 |
| 74AHC1G_AHCT1G126 v.1 | 19990920 | Product specification | - | - |

# 16. Legal information

## 16.1 Data sheet status

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

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

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

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

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## 18. Contents





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