



# 74HC125; 74HCT125

Quad buffer/line driver; 3-state

Rev. 8 — 22 February 2024

Product data sheet

## 1. General description

The 74HC125; 74HCT125 is a quad buffer/line driver with 3-state outputs controlled by the output enable inputs ( $\overline{nOE}$ ). A HIGH on  $\overline{nOE}$  causes the outputs to assume a high impedance OFF-state. Inputs include clamp diodes. This enables the use of current limiting resistors to interface inputs to voltages in excess of  $V_{CC}$ .

## 2. Features and benefits

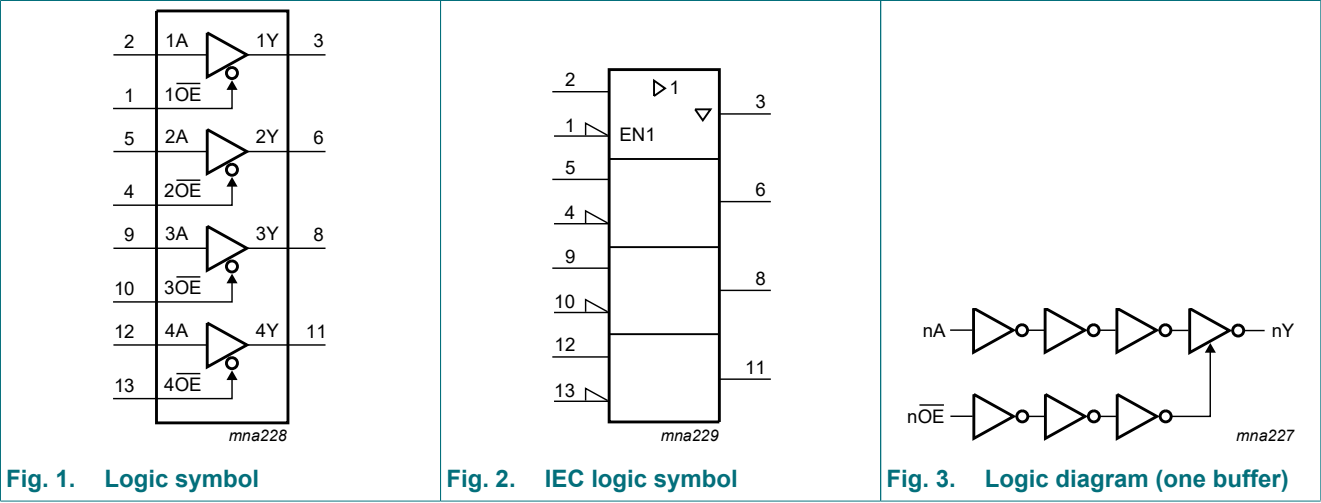
- Wide supply voltage range from 2.0 V to 6.0 V
- CMOS low power dissipation
- High noise immunity
- Latch-up performance exceeds 100 mA per JESD 78 Class II Level B
- Complies with JEDEC standards:
  - JESD8C (2.7 V to 3.6 V)
  - JESD7A (2.0 V to 6.0 V)
- Input levels:
  - The 74HC125: CMOS levels
  - The 74HCT125: TTL levels
- ESD protection:
  - HBM: ANSI/ESDA/JEDEC JS-001 class 2 exceeds 2000 V
  - CDM: ANSI/ESDA/JEDEC JS-002 class C3 exceeds 1000 V
- Specified from -40 °C to +85 °C and from -40 °C to +125 °C

## 3. Ordering information

Table 1. Ordering information

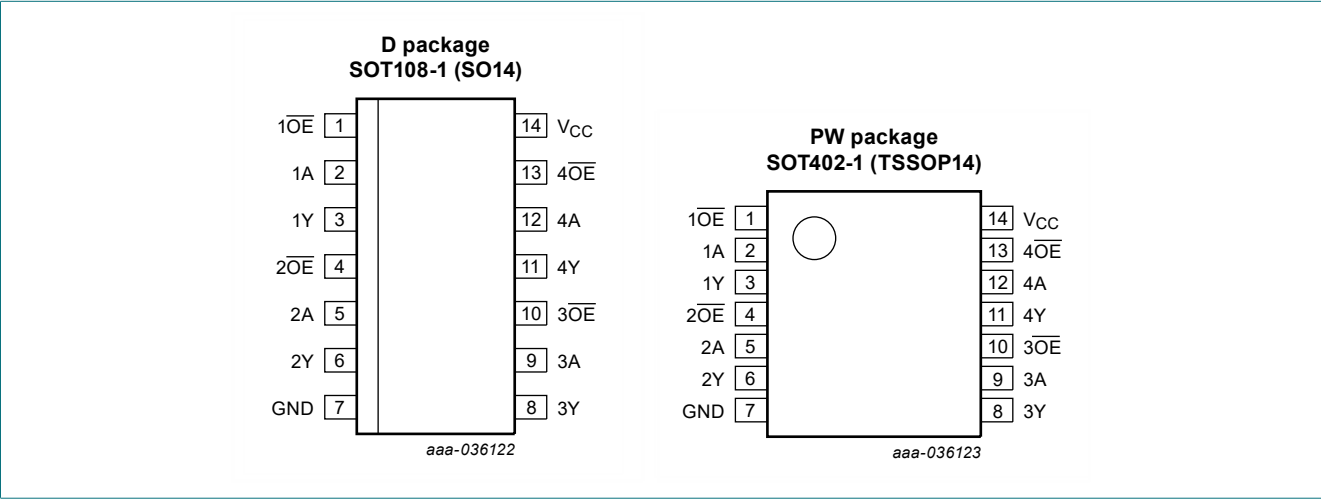
| Type number                                             | Package           |         |                                                                           |                          |
|---------------------------------------------------------|-------------------|---------|---------------------------------------------------------------------------|--------------------------|
|                                                         | Temperature range | Name    | Description                                                               | Version                  |
| <a href="#">74HC125D</a><br><a href="#">74HCT125D</a>   | -40 °C to +125 °C | SO14    | plastic small outline package; 14 leads;<br>body width 3.9 mm             | <a href="#">SOT108-1</a> |
| <a href="#">74HC125PW</a><br><a href="#">74HCT125PW</a> | -40 °C to +125 °C | TSSOP14 | plastic thin shrink small outline package; 14 leads;<br>body width 4.4 mm | <a href="#">SOT402-1</a> |

4. Functional diagram



5. Pinning information

5.1. Pinning



5.2. Pin description

Table 2. Pin description

| Symbol             | Pin          | Description                      |
|--------------------|--------------|----------------------------------|
| 1OE, 2OE, 3OE, 4OE | 1, 4, 10, 13 | output enable input (active LOW) |
| 1A, 2A, 3A, 4A     | 2, 5, 9, 12  | data input                       |
| 1Y, 2Y, 3Y, 4Y     | 3, 6, 8, 11  | data output                      |
| GND                | 7            | ground (0 V)                     |
| V <sub>CC</sub>    | 14           | supply voltage                   |

6. Functional description

Table 3. Function table

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

| Control | Input | Output |
|---------|-------|--------|
| nOE     | nA    | nY     |
| L       | L     | L      |
|         | H     | H      |
| H       | X     | Z      |

7. Limiting values

Table 4. 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 | +7   | V    |
| I <sub>IK</sub>  | input clamping current  | V <sub>I</sub> < -0.5 V or V <sub>I</sub> > V <sub>CC</sub> + 0.5 V [1] | -    | ±20  | mA   |
| I <sub>OK</sub>  | output clamping current | V <sub>O</sub> < -0.5 V or V <sub>O</sub> > V <sub>CC</sub> + 0.5 V [1] | -    | ±20  | mA   |
| I <sub>O</sub>   | output current          | V <sub>O</sub> = -0.5 V to (V <sub>CC</sub> + 0.5 V)                    | -    | ±35  | mA   |
| I <sub>CC</sub>  | supply current          |                                                                         | -    | +70  | mA   |
| I <sub>GND</sub> | ground current          |                                                                         | -    | -70  | mA   |
| T <sub>stg</sub> | storage temperature     |                                                                         | -65  | +150 | °C   |
| P <sub>tot</sub> | total power dissipation | [2]                                                                     | -    | 500  | mW   |

- [1] The input and output voltage ratings may be exceeded if the input and output current ratings are observed.
- [2] For SOT108-1 (SO14) package: P<sub>tot</sub> derates linearly with 10.1 mW/K above 100 °C.  
For SOT402-1 (TSSOP14) package: P<sub>tot</sub> derates linearly with 7.3 mW/K above 81 °C.

8. Recommended operating conditions

Table 5. Recommended operating conditions

Voltages are referenced to GND (ground = 0 V)

| Symbol           | Parameter                           | Conditions              | 74HC125 |      |                 | 74HCT125 |      |                 | Unit |
|------------------|-------------------------------------|-------------------------|---------|------|-----------------|----------|------|-----------------|------|
|                  |                                     |                         | Min     | Typ  | Max             | Min      | Typ  | Max             |      |
| V <sub>CC</sub>  | supply voltage                      |                         | 2.0     | 5.0  | 6.0             | 4.5      | 5.0  | 5.5             | V    |
| V <sub>I</sub>   | input voltage                       |                         | 0       | -    | V <sub>CC</sub> | 0        | -    | V <sub>CC</sub> | V    |
| V <sub>O</sub>   | output voltage                      |                         | 0       | -    | V <sub>CC</sub> | 0        | -    | V <sub>CC</sub> | V    |
| T <sub>amb</sub> | ambient temperature                 |                         | -40     | +25  | +125            | -40      | +25  | +125            | °C   |
| Δt/ΔV            | input transition rise and fall rate | V <sub>CC</sub> = 2.0 V | -       | -    | 625             | -        | -    | -               | ns/V |
|                  |                                     | V <sub>CC</sub> = 4.5 V | -       | 1.67 | 139             | -        | 1.67 | 139             | ns/V |
|                  |                                     | V <sub>CC</sub> = 6.0 V | -       | -    | 83              | -        | -    | -               | ns/V |

9. Static characteristics

Table 6. Static characteristics

At recommended operating conditions; 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   |      |
| 74HC125         |                           |                                                                                                                              |       |      |      |                  |      |                   |       |      |
| V <sub>IH</sub> | HIGH-level input voltage  | V <sub>CC</sub> = 2.0 V                                                                                                      | 1.5   | 1.2  | -    | 1.5              | -    | 1.5               | -     | V    |
|                 |                           | V <sub>CC</sub> = 4.5 V                                                                                                      | 3.15  | 2.4  | -    | 3.15             | -    | 3.15              | -     | V    |
|                 |                           | V <sub>CC</sub> = 6.0 V                                                                                                      | 4.2   | 3.2  | -    | 4.2              | -    | 4.2               | -     | V    |
| V <sub>IL</sub> | LOW-level input voltage   | V <sub>CC</sub> = 2.0 V                                                                                                      | -     | 0.8  | 0.5  | -                | 0.5  | -                 | 0.5   | V    |
|                 |                           | V <sub>CC</sub> = 4.5 V                                                                                                      | -     | 2.1  | 1.35 | -                | 1.35 | -                 | 1.35  | V    |
|                 |                           | V <sub>CC</sub> = 6.0 V                                                                                                      | -     | 2.8  | 1.8  | -                | 1.8  | -                 | 1.8   | 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> = 2.0 V                                                                             | 1.9   | 2.0  | -    | 1.9              | -    | 1.9               | -     | V    |
|                 |                           | I <sub>O</sub> = -20 μA; V <sub>CC</sub> = 4.5 V                                                                             | 4.4   | 4.5  | -    | 4.4              | -    | 4.4               | -     | V    |
|                 |                           | I <sub>O</sub> = -20 μA; V <sub>CC</sub> = 6.0 V                                                                             | 5.9   | 6.0  | -    | 5.9              | -    | 5.9               | -     | V    |
|                 |                           | I <sub>O</sub> = -6.0 mA; V <sub>CC</sub> = 4.5 V                                                                            | 3.98  | 4.32 | -    | 3.84             | -    | 3.7               | -     | V    |
|                 |                           | I <sub>O</sub> = -7.8 mA; V <sub>CC</sub> = 6.0 V                                                                            | 5.48  | 5.81 | -    | 5.34             | -    | 5.2               | -     | 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> = 2.0 V                                                                              | -     | 0    | 0.1  | -                | 0.1  | -                 | 0.1   | V    |
|                 |                           | I <sub>O</sub> = 20 μA; V <sub>CC</sub> = 4.5 V                                                                              | -     | 0    | 0.1  | -                | 0.1  | -                 | 0.1   | V    |
|                 |                           | I <sub>O</sub> = 20 μA; V <sub>CC</sub> = 6.0 V                                                                              | -     | 0    | 0.1  | -                | 0.1  | -                 | 0.1   | V    |
|                 |                           | I <sub>O</sub> = 6.0 mA; V <sub>CC</sub> = 4.5 V                                                                             | -     | 0.15 | 0.26 | -                | 0.33 | -                 | 0.4   | V    |
|                 |                           | I <sub>O</sub> = 7.8 mA; V <sub>CC</sub> = 6.0 V                                                                             | -     | 0.16 | 0.26 | -                | 0.33 | -                 | 0.4   | V    |
| I <sub>I</sub>  | input leakage current     | V <sub>I</sub> = V <sub>CC</sub> or GND;<br>V <sub>CC</sub> = 6.0 V                                                          | -     | -    | ±0.1 | -                | ±1.0 | -                 | ±1.0  | μA   |
| I <sub>OZ</sub> | OFF-state output current  | V <sub>I</sub> = V <sub>IH</sub> or V <sub>IL</sub> ;<br>V <sub>O</sub> = V <sub>CC</sub> or GND;<br>V <sub>CC</sub> = 6.0 V | -     | -    | ±0.5 | -                | ±5.0 | -                 | ±10.0 | μA   |
| I <sub>CC</sub> | supply current            | V <sub>I</sub> = V <sub>CC</sub> or GND; I <sub>O</sub> = 0 A;<br>V <sub>CC</sub> = 6.0 V                                    | -     | -    | 8.0  | -                | 80   | -                 | 160   | μA   |
| C <sub>I</sub>  | input capacitance         |                                                                                                                              | -     | 3.5  | -    | -                | -    | -                 | -     | pF   |

| Symbol           | Parameter                 | Conditions                                                                                                                                              | 25 °C |      |      | -40 °C to +85 °C |      | -40 °C to +125 °C |      | Unit |
|------------------|---------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|-------|------|------|------------------|------|-------------------|------|------|
|                  |                           |                                                                                                                                                         | Min   | Typ  | Max  | Min              | Max  | Min               | Max  |      |
| 74HCT125         |                           |                                                                                                                                                         |       |      |      |                  |      |                   |      |      |
| V <sub>IH</sub>  | HIGH-level input voltage  | V <sub>CC</sub> = 4.5 V to 5.5 V                                                                                                                        | 2.0   | 1.6  | -    | 2.0              | -    | 2.0               | -    | V    |
| V <sub>IL</sub>  | LOW-level input voltage   | V <sub>CC</sub> = 4.5 V to 5.5 V                                                                                                                        | -     | 1.2  | 0.8  | -                | 0.8  | -                 | 0.8  | V    |
| V <sub>OH</sub>  | HIGH-level output voltage | V <sub>I</sub> = V <sub>IH</sub> or V <sub>IL</sub> ; V <sub>CC</sub> = 4.5 V                                                                           |       |      |      |                  |      |                   |      |      |
|                  |                           | I <sub>O</sub> = -20 µA                                                                                                                                 | 4.4   | 4.5  | -    | 4.4              | -    | 4.4               | -    | V    |
|                  |                           | I <sub>O</sub> = -6 mA                                                                                                                                  | 3.98  | 4.32 | -    | 3.84             | -    | 3.7               | -    | V    |
| V <sub>OL</sub>  | LOW-level output voltage  | V <sub>I</sub> = V <sub>IH</sub> or V <sub>IL</sub> ; V <sub>CC</sub> = 4.5 V                                                                           |       |      |      |                  |      |                   |      |      |
|                  |                           | I <sub>O</sub> = 20 µA                                                                                                                                  | -     | 0    | 0.1  | -                | 0.1  | -                 | 0.1  | V    |
|                  |                           | I <sub>O</sub> = 6.0 mA                                                                                                                                 | -     | 0.16 | 0.26 | -                | 0.33 | -                 | 0.4  | V    |
| I <sub>I</sub>   | input leakage current     | V <sub>I</sub> = V <sub>CC</sub> or GND; V <sub>CC</sub> = 5.5 V                                                                                        | -     | -    | ±0.1 | -                | ±1.0 | -                 | ±1.0 | µA   |
| I <sub>OZ</sub>  | OFF-state output current  | V <sub>I</sub> = V <sub>IH</sub> or V <sub>IL</sub> ; V <sub>CC</sub> = 5.5 V; V <sub>O</sub> = V <sub>CC</sub> or GND                                  | -     | -    | ±0.5 | -                | ±5.0 | -                 | ±10  | µA   |
| I <sub>CC</sub>  | supply current            | V <sub>I</sub> = V <sub>CC</sub> or GND; I <sub>O</sub> = 0 A; V <sub>CC</sub> = 5.5 V                                                                  | -     | -    | 8.0  | -                | 80   | -                 | 160  | µA   |
| ΔI <sub>CC</sub> | additional supply current | per input pin; V <sub>I</sub> = V <sub>CC</sub> - 2.1 V; I <sub>O</sub> = 0 A; other inputs at V <sub>CC</sub> or GND; V <sub>CC</sub> = 4.5 V to 5.5 V | -     | 100  | 360  | -                | 450  | -                 | 490  | µA   |
| C <sub>I</sub>   | input capacitance         |                                                                                                                                                         | -     | 3.5  | -    | -                | -    | -                 | -    | pF   |

10. Dynamic characteristics

Table 7. Dynamic characteristics

Voltages are referenced to GND (ground = 0 V); C<sub>L</sub> = 50 pF unless otherwise specified; for test circuit see Fig. 6.

| Symbol           | Parameter                     | Conditions                                                                             | 25 °C |     |     | -40 °C to +85 °C |     | -40 °C to +125 °C |     | Unit |
|------------------|-------------------------------|----------------------------------------------------------------------------------------|-------|-----|-----|------------------|-----|-------------------|-----|------|
|                  |                               |                                                                                        | Min   | Typ | Max | Min              | Max | Min               | Max |      |
| 74HC125          |                               |                                                                                        |       |     |     |                  |     |                   |     |      |
| t <sub>pd</sub>  | propagation delay             | nA to nY; see <a href="#">Fig. 4</a> [1]                                               |       |     |     |                  |     |                   |     |      |
|                  |                               | V <sub>CC</sub> = 2.0 V                                                                | -     | 30  | 100 | -                | 125 | -                 | 150 | ns   |
|                  |                               | V <sub>CC</sub> = 4.5 V                                                                | -     | 11  | 20  | -                | 25  | -                 | 30  | ns   |
|                  |                               | V <sub>CC</sub> = 5 V; C <sub>L</sub> = 15 pF                                          | -     | 9   | -   | -                | -   | -                 | -   | ns   |
|                  |                               | V <sub>CC</sub> = 6.0 V                                                                | -     | 9   | 17  | -                | 21  | -                 | 26  | ns   |
| t <sub>en</sub>  | enable time                   | n $\overline{\text{OE}}$ to nY; see <a href="#">Fig. 5</a> [2]                         |       |     |     |                  |     |                   |     |      |
|                  |                               | V <sub>CC</sub> = 2.0 V                                                                | -     | 41  | 125 | -                | 155 | -                 | 190 | ns   |
|                  |                               | V <sub>CC</sub> = 4.5 V                                                                | -     | 15  | 25  | -                | 31  | -                 | 38  | ns   |
|                  |                               | V <sub>CC</sub> = 6.0 V                                                                | -     | 12  | 21  | -                | 26  | -                 | 32  | ns   |
| t <sub>dis</sub> | disable time                  | n $\overline{\text{OE}}$ to nY; see <a href="#">Fig. 5</a> [3]                         |       |     |     |                  |     |                   |     |      |
|                  |                               | V <sub>CC</sub> = 2.0 V                                                                | -     | 41  | 125 | -                | 155 | -                 | 190 | ns   |
|                  |                               | V <sub>CC</sub> = 4.5 V                                                                | -     | 15  | 25  | -                | 31  | -                 | 38  | ns   |
|                  |                               | V <sub>CC</sub> = 6.0 V                                                                | -     | 12  | 21  | -                | 26  | -                 | 32  | ns   |
| t <sub>t</sub>   | transition time               | nY; see <a href="#">Fig. 4</a> [4]                                                     |       |     |     |                  |     |                   |     |      |
|                  |                               | V <sub>CC</sub> = 2.0 V                                                                | -     | 14  | 60  | -                | 75  | -                 | 90  | ns   |
|                  |                               | V <sub>CC</sub> = 4.5 V                                                                | -     | 5   | 12  | -                | 15  | -                 | 18  | ns   |
|                  |                               | V <sub>CC</sub> = 6.0 V                                                                | -     | 4   | 10  | -                | 13  | -                 | 15  | ns   |
| C <sub>PD</sub>  | power dissipation capacitance | C <sub>L</sub> = 50 pF; f = 1 MHz; V <sub>I</sub> = GND to V <sub>CC</sub> [5]         | -     | 22  | -   | -                | -   | -                 | -   | pF   |
| 74HCT125         |                               |                                                                                        |       |     |     |                  |     |                   |     |      |
| t <sub>pd</sub>  | propagation delay             | nA to nY; see <a href="#">Fig. 4</a> [1]                                               |       |     |     |                  |     |                   |     |      |
|                  |                               | V <sub>CC</sub> = 4.5 V                                                                | -     | 15  | 25  | -                | 31  | -                 | 38  | ns   |
|                  |                               | V <sub>CC</sub> = 5 V; C <sub>L</sub> = 15 pF                                          | -     | 12  | -   | -                | -   | -                 | -   | ns   |
| t <sub>en</sub>  | enable time                   | n $\overline{\text{OE}}$ to nY; see <a href="#">Fig. 5</a> [2]                         |       |     |     |                  |     |                   |     |      |
|                  |                               | V <sub>CC</sub> = 4.5 V                                                                | -     | 15  | 28  | -                | 35  | -                 | 42  | ns   |
| t <sub>dis</sub> | disable time                  | n $\overline{\text{OE}}$ to nY; see <a href="#">Fig. 5</a> [3]                         |       |     |     |                  |     |                   |     |      |
|                  |                               | V <sub>CC</sub> = 4.5 V                                                                | -     | 15  | 25  | -                | 31  | -                 | 38  | ns   |
| t <sub>t</sub>   | transition time               | nY; see <a href="#">Fig. 4</a> [4]                                                     | -     | 5   | 12  | -                | 15  | -                 | 18  | ns   |
| C <sub>PD</sub>  | power dissipation capacitance | C <sub>L</sub> = 50 pF; f = 1 MHz; V <sub>I</sub> = GND to V <sub>CC</sub> - 1.5 V [5] | -     | 24  | -   | -                | -   | -                 | -   | pF   |

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

[2] t<sub>en</sub> is the same as t<sub>PZH</sub> and t<sub>PZL</sub>.

[3] t<sub>dis</sub> is the same as t<sub>PLZ</sub> and t<sub>PHZ</sub>.

[4] t<sub>t</sub> is the same as t<sub>THL</sub> and t<sub>TLH</sub>.

[5] C<sub>PD</sub> is used to determine the dynamic power dissipation (P<sub>D</sub> in μW). P<sub>D</sub> = C<sub>PD</sub> × V<sub>CC</sub><sup>2</sup> × f<sub>i</sub> × N + Σ(C<sub>L</sub> × V<sub>CC</sub><sup>2</sup> × f<sub>o</sub>) 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 outputs.

10.1. Waveforms and test circuit

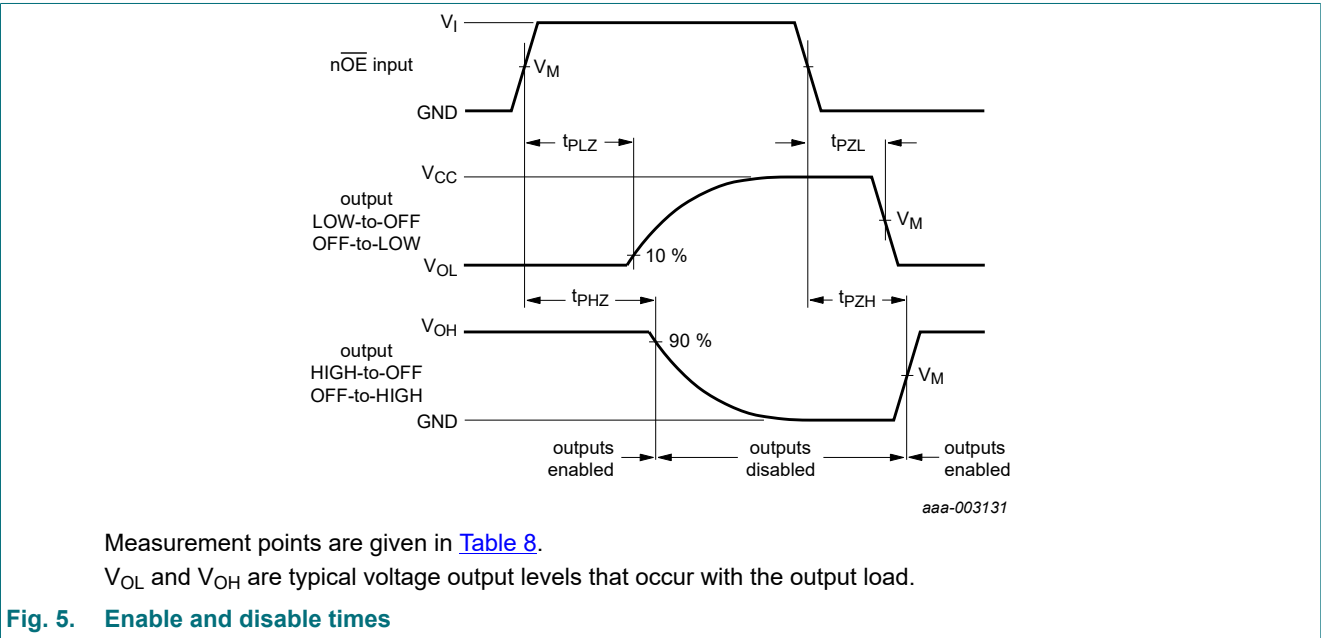
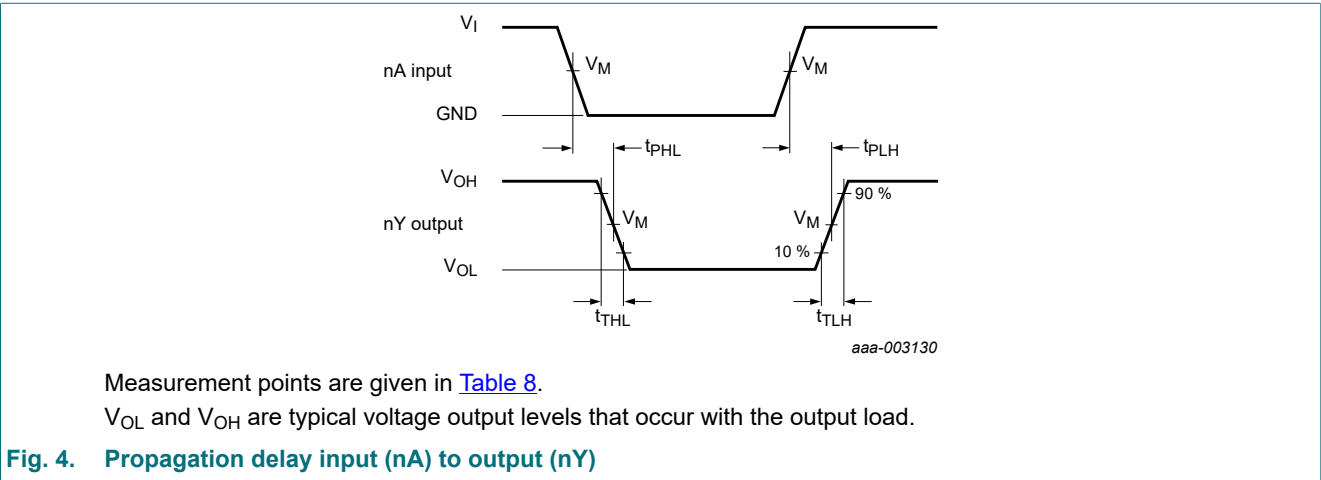
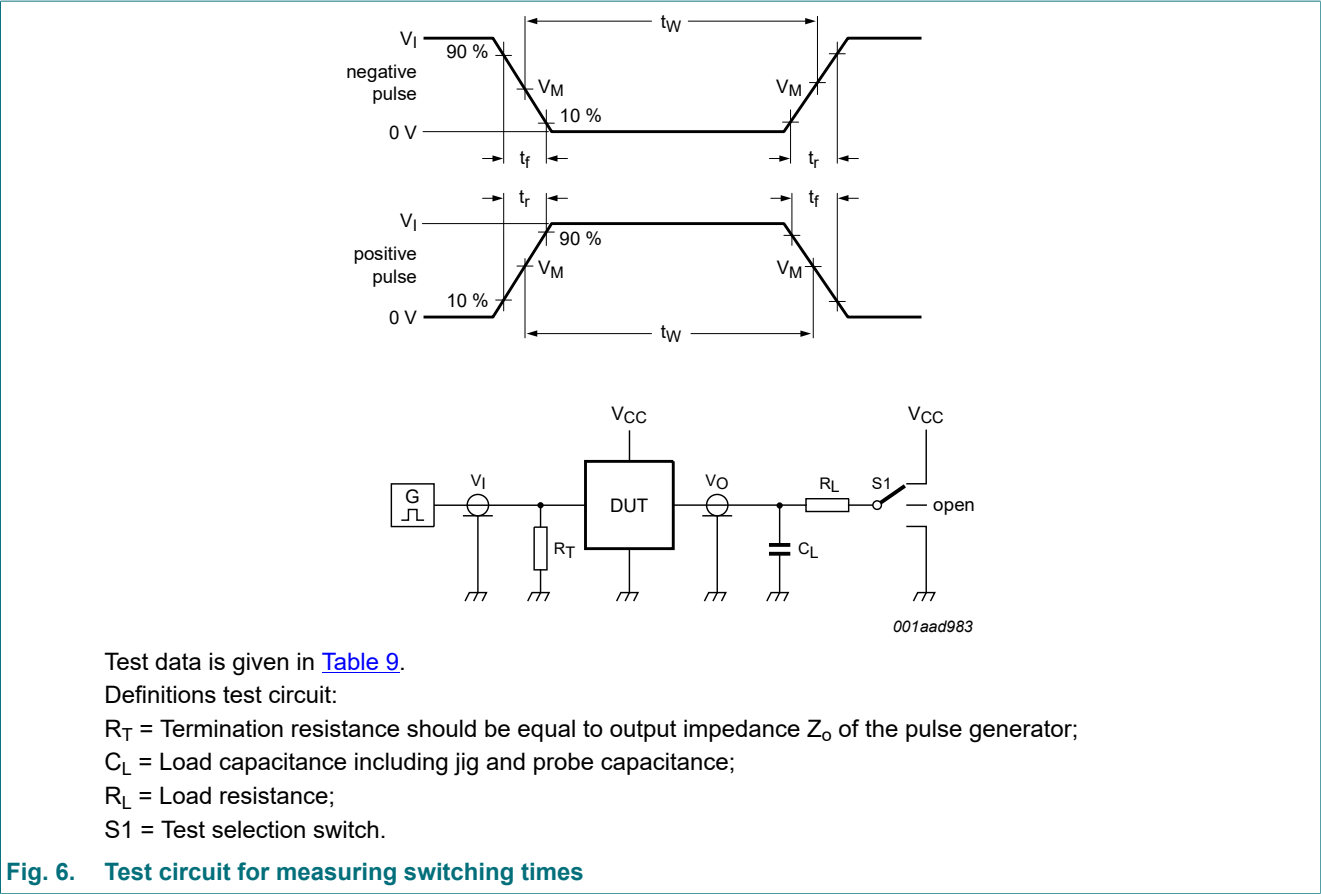


Table 8. Measurement points

| Type     | Input               | Output              |
|----------|---------------------|---------------------|
|          | $V_M$               | $V_M$               |
| 74HC125  | $0.5 \times V_{CC}$ | $0.5 \times V_{CC}$ |
| 74HCT125 | 1.3 V               | 1.3 V               |



Test data is given in [Table 9](#).  
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. 6. Test circuit for measuring switching times

Table 9. Test data

| Type     | Input    |            | Load         |              | S1 position        |                    |                    |
|----------|----------|------------|--------------|--------------|--------------------|--------------------|--------------------|
|          | $V_I$    | $t_r, t_f$ | $C_L$        | $R_L$        | $t_{PHL}, t_{PLH}$ | $t_{PZH}, t_{PHZ}$ | $t_{PZL}, t_{PLZ}$ |
| 74HC125  | $V_{CC}$ | 6 ns       | 15 pF, 50 pF | 1 k $\Omega$ | open               | GND                | $V_{CC}$           |
| 74HCT125 | 3 V      | 6 ns       | 15 pF, 50 pF | 1 k $\Omega$ | open               | GND                | $V_{CC}$           |

11. Package outline

SO14: plastic small outline package; 14 leads; body width 3.9 mm

SOT108-1



Fig. 7. Package outline SOT108-1 (SO14)

TSSOP14: plastic thin shrink small outline package; 14 leads; body width 4.4 mm

SOT402-1

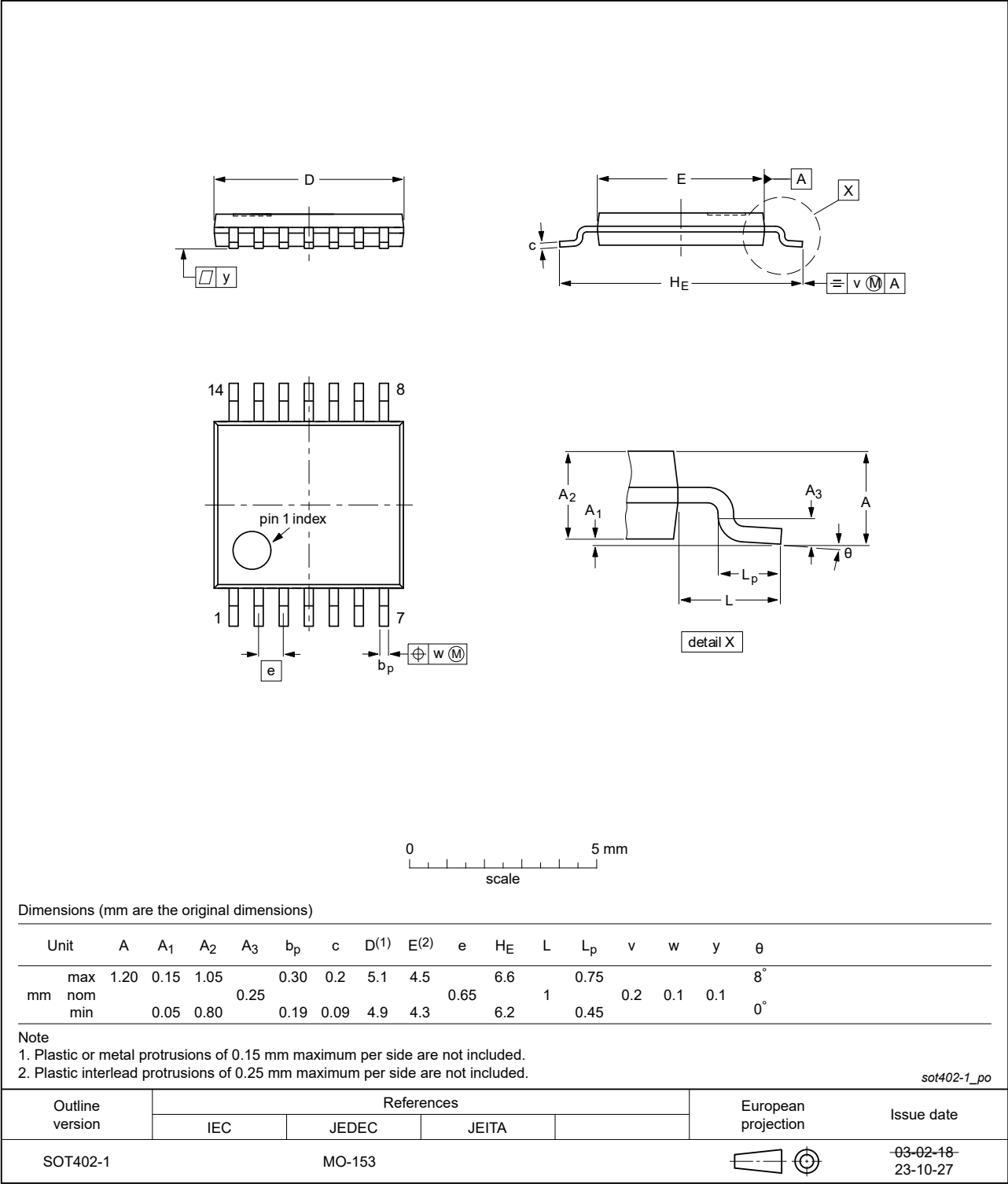


Fig. 8. Package outline SOT402-1 (TSSOP14)

12. Abbreviations

Table 10. Abbreviations

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

13. Revision history

Table 11. Revision history

| Document ID         | Release date                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Data sheet status  | Change notice | Supersedes          |
|---------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|---------------|---------------------|
| 74HC_HCT125 v.8     | 20240222                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Product data sheet | -             | 74HC_HCT125 v.7     |
| Modifications:      | <ul style="list-style-type: none"><li><a href="#">Section 2</a>: ESD specification updated according to the latest JEDEC standard.</li><li><a href="#">Fig. 7</a>, <a href="#">Fig. 8</a>: Aligned SO and TSSOP package outline drawings to JEDEC MS-012 and MO-153</li></ul>                                                                                                                                                                                       |                    |               |                     |
| 74HC_HCT125 v.7     | 20210204                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Product data sheet | -             | 74HC_HCT125 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><li>Type number 74HC125DB and 74HCT125DB (SOT337-1 / SSOP14) removed.</li><li><a href="#">Section 2</a> updated.</li><li><a href="#">Section 7</a>: Derating values for P<sub>tot</sub> total power dissipation updated.</li></ul> |                    |               |                     |
| 74HC_HCT125 v.6     | 20151201                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Product data sheet | -             | 74HC_HCT125 v.5     |
| Modifications:      | <ul style="list-style-type: none"><li>Type numbers 74HC125N and 74HCT125N (SOT27-1) removed.</li></ul>                                                                                                                                                                                                                                                                                                                                                              |                    |               |                     |
| 74HC_HCT125 v.5     | 20150119                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Product data sheet | -             | 74HC_HCT125 v.4     |
| Modifications:      | <ul style="list-style-type: none"><li><a href="#">Table 7</a>: Power dissipation capacitance condition for 74HCT125 is corrected.</li></ul>                                                                                                                                                                                                                                                                                                                         |                    |               |                     |
| 74HC_HCT125 v.4     | 20130110                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Product data sheet | -             | 74HC_HCT125 v.3     |
| Modifications:      | <ul style="list-style-type: none"><li>New general description.</li></ul>                                                                                                                                                                                                                                                                                                                                                                                            |                    |               |                     |
| 74HC_HCT125 v.3     | 20120827                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Product data sheet | -             | 74HC_HCT125_CNV v.2 |
| Modifications:      | <ul style="list-style-type: none"><li>The format of this data sheet has been redesigned to comply with the new identity guidelines of NXP Semiconductors.</li><li>Legal texts have been adapted to the new company name where appropriate.</li></ul>                                                                                                                                                                                                                |                    |               |                     |
| 74HC_HCT125_CNV v.2 | 19970827                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Product data sheet | -             | -                   |

## 14. 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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Contents

1. General description..... 1

2. Features and benefits..... 1

3. Ordering information..... 1

4. Functional diagram..... 2

5. Pinning information..... 2

5.1. Pinning..... 2

5.2. Pin description..... 2

6. Functional description..... 3

7. Limiting values..... 3

8. Recommended operating conditions..... 3

9. Static characteristics..... 4

10. Dynamic characteristics..... 6

10.1. Waveforms and test circuit..... 7

11. Package outline..... 9

12. Abbreviations..... 11

13. Revision history..... 11

14. Legal information..... 12

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Date of release: 22 February 2024