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# 74AHC377; 74AHCT377

## Octal D-type flip-flop with data enable; positive-edge trigger

Rev. 02 — 12 June 2008 Product data sheet

## 1. General description

The 74AHC377; 74AHCT377 is a high-speed Si-gate CMOS device and is pin compatible with Low-power Schottky TTL (LSTTL). It is specified in compliance with JEDEC standard No. 7-A.

The 74AHC377; 74AHCT377 has eight edge-triggered, D-type flip-flops with individual D inputs and Q outputs. A common clock input (CP) loads all flip-flops simultaneously when the data enable input ($\overline{E}$) is LOW. The state of each D input, one set-up time before the LOW-to-HIGH clock transition, is transferred to the corresponding output (Qn) of the flip-flop. The $\overline{E}$ input is only required to be stable one set-up time prior to the LOW-to-HIGH transition for predictable operation.

For versions associated with the 74AHC377; 74AHCT377, refer to the following:

- For the master reset version, see 74AHC273; 74AHCT273
- For the transparent latch version, see 74AHC373; 74AHCT373
- For the 3-state version, see 74AHC374; 74AHCT374

## 2. Features

- Balanced propagation delays
- All inputs have Schmitt-trigger actions
- Inputs accept voltages higher than $V_{CC}$
- Ideal for addressable register applications
- Data enable for address and data synchronization
- Eight positive-edge triggered D-type flip-flops
- Input levels:
  - For 74AHC377: CMOS level
  - For 74AHCT377: TTL level
- ESD protection:
  - HBM EIA/JESD22-A114E exceeds 2000 V
  - MM EIA/JESD22-A115-A exceeds 200 V
  - CDM EIA/JESD22-C101C exceeds 1000 V
- Multiple package options
- 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 |
| **74AHC377** | | | | |
| 74AHC377D | −40 °C to +125 °C | SO20 | plastic small outline package; 20 leads; body width 7.5 mm | SOT163-1 |
| 74AHC377PW | −40 °C to +125 °C | TSSOP20 | plastic thin shrink small outline package; 20 leads; body width 4.4 mm | SOT360-1 |
| **74AHCT377** | | | | |
| 74AHCT377D | −40 °C to +125 °C | SO20 | plastic small outline package; 20 leads; body width 7.5 mm | SOT163-1 |
| 74AHCT377PW | −40 °C to +125 °C | TSSOP20 | plastic thin shrink small outline package; 20 leads; body width 4.4 mm | SOT360-1 |

## 4. Functional diagram

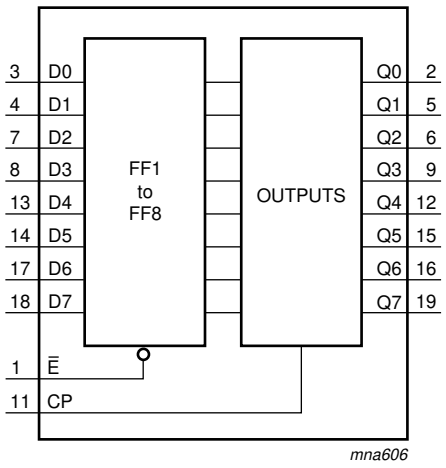



Fig 1. Functional diagram

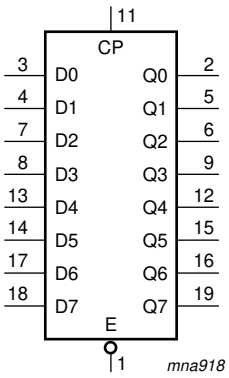



Fig 2. Logic symbol

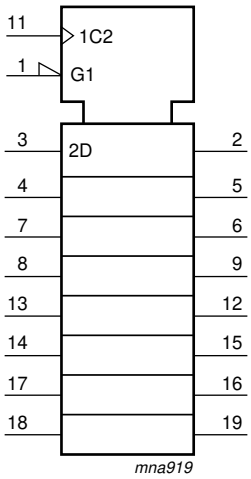



Fig 3. IEC logic symbol

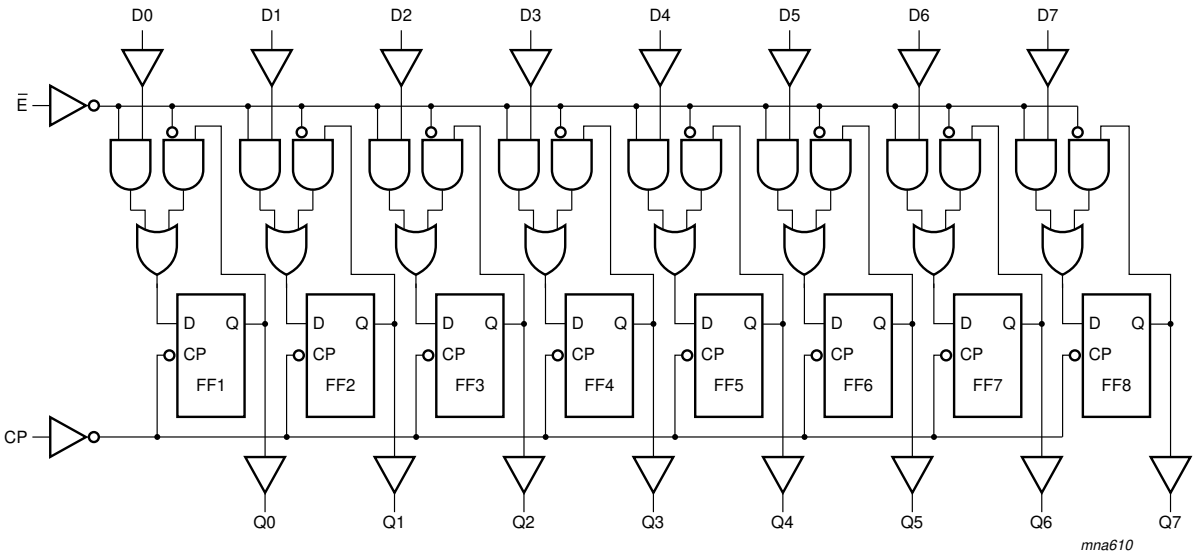



Fig 4. Logic diagram

# 5. Pinning information

## 5.1 Pinning

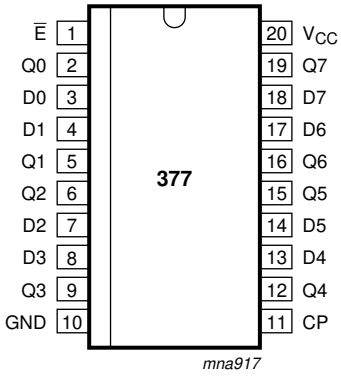



**Fig 5. Pin configuration SO20 and TSSOP20**

## 5.2 Pin description

**Table 2. Pin description**

| Symbol | Pin | Description |
|---|---|---|
| $\overline{E}$ | 1 | data enable input (active LOW) |
| Q0 | 2 | flip-flop output |
| D0 | 3 | data input |
| D1 | 4 | data input |
| Q1 | 5 | flip-flop output |
| Q2 | 6 | flip-flop output |
| D2 | 7 | data input |
| D3 | 8 | data input |
| Q3 | 9 | flip-flop output |
| GND | 10 | ground (0 V) |
| CP | 11 | clock input (LOW-to-HIGH, edge triggered) |
| Q4 | 12 | flip-flop output |
| D4 | 13 | data input |
| D5 | 14 | data input |
| Q5 | 15 | flip-flop output |
| Q6 | 16 | flip-flop output |
| D6 | 17 | data input |
| D7 | 18 | data input |
| Q7 | 19 | flip-flop output |
| $V_{CC}$ | 20 | supply voltage |

# 6. Functional description

**Table 3. Function table[1]**

| Operating mode | Control | | Input | Output |
|---|---|---|---|---|
| | $\overline{E}$ | CP | Dn | Qn |
| Load 1 | l | ↑ | h | H |
| Load 0 | l | ↑ | l | L |
| Hold (do nothing) | h | ↑ | X | no change |
| | H | X | X | no change |

[1] H = HIGH voltage level;
h = HIGH voltage level one set-up time prior to the LOW-to-HIGH CP transition;
L = LOW voltage level;
l = LOW voltage level one set-up time prior to the LOW-to-HIGH CP transition;
↑ = LOW-to-HIGH CP transition;
X = don't care.

# 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 |
|---|---|---|---|---|---|---|
| $V_{CC}$ | 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 | +20 | mA |
| $I_O$ | output current | $V_O = -0.5$ V to $(V_{CC} + 0.5$ V) | | −25 | +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] | - | 500 | mW |

[1] The input and output voltage ratings may be exceeded if the input and output current ratings are observed.

[2] For SO20 packages: above 70 °C the value of $P_{tot}$ derates linearly at 8 mW/K.
For TSSOP20 packages: above 60 °C the value of $P_{tot}$ derates linearly at 5.5 mW/K.

## 8. Recommended operating conditions

**Table 5. Operating conditions**

| Symbol | Parameter | Conditions | Min | Typ | Max | Unit |
|---|---|---|---|---|---|---|
| **74AHC377** | | | | | | |
| $V_{CC}$ | supply voltage | | 2.0 | 5.0 | 5.5 | V |
| $V_I$ | input voltage | | 0 | - | 5.5 | V |
| $V_O$ | output voltage | | 0 | - | $V_{CC}$ | V |
| $T_{amb}$ | ambient temperature | | −40 | +25 | +125 | °C |
| $\Delta t/\Delta V$ | input transition rise and fall rate | $V_{CC}$ = 3.0 V to 3.6 V | - | - | 100 | ns/V |
| | | $V_{CC}$ = 4.5 V to 5.5 V | - | - | 20 | ns/V |
| **74AHCT377** | | | | | | |
| $V_{CC}$ | supply voltage | | 4.5 | 5.0 | 5.5 | V |
| $V_I$ | input voltage | | 0 | - | 5.5 | V |
| $V_O$ | output voltage | | 0 | - | $V_{CC}$ | V |
| $T_{amb}$ | ambient temperature | | −40 | +25 | +125 | °C |
| $\Delta t/\Delta V$ | input transition rise and fall rate | $V_{CC}$ = 4.5 V to 5.5 V | - | - | 20 | 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 | |
| **74AHC377** | | | | | | | | | | |
| $V_{IH}$ | 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 | - | - | 3.80 | - | 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 |

**Table 6. Static characteristics** *…continued*

*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 | |
| $I_I$ | 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 | - | - | 4.0 | - | 40 | - | 80 | µA |
| $C_I$ | input capacitance | $V_I = V_{CC}$ or GND | - | 3 | 10 | - | 10 | - | 10 | pF |
| **74AHCT377** | | | | | | | | | | |
| $V_{IH}$ | 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 | - | - | 3.80 | - | 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 |
| $I_I$ | 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 | - | - | 4.0 | - | 40 | - | 80 | µA |
| $\Delta I_{CC}$ | additional supply current | per input pin; $V_I = V_{CC}$ – 2.1 V; other pins 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 | $V_I = V_{CC}$ or GND | - | 3 | 10 | - | 10 | - | 10 | pF |

## 10. Dynamic characteristics

**Table 7. Dynamic characteristics**

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

| Symbol | Parameter | Conditions | 25 °C | | | −40 °C to +85 °C | | −40 °C to +125 °C | | Unit |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Min | Typ[1] | Max | Min | Max | Min | Max | |
| **74AHC377** | | | | | | | | | | |
| $t_{pd}$ | propagation delay | CP to Qn; see Figure 6 [2] | | | | | | | | |
| | | $V_{CC}$ = 3.0 V to 3.6 V | | | | | | | | |
| | | $C_L$ = 15 pF | - | 5.6 | 12.8 | 1.0 | 15.0 | 1.0 | 16.0 | ns |
| | | $C_L$ = 50 pF | - | 8.0 | 16.0 | 1.0 | 18.0 | 1.0 | 20.0 | ns |
| | | $V_{CC}$ = 4.5 V to 5.5 V | | | | | | | | |
| | | $C_L$ = 15 pF | - | 3.9 | 9.0 | 1.0 | 10.5 | 1.0 | 11.5 | ns |
| | | $C_L$ = 50 pF | - | 5.6 | 10.5 | 1.0 | 12.0 | 1.0 | 13.5 | ns |
| $f_{max}$ | maximum frequency | see Figure 6 | | | | | | | | |
| | | $V_{CC}$ = 3.0 V to 3.6 V | | | | | | | | |
| | | $C_L$ = 15 pF | 80 | 125 | - | 70 | - | 70 | - | MHz |
| | | $C_L$ = 50 pF | 50 | 75 | - | 45 | - | 45 | - | MHz |
| | | $V_{CC}$ = 4.5 V to 5.5 V | | | | | | | | |
| | | $C_L$ = 15 pF | 125 | 175 | - | 110 | - | 110 | - | MHz |
| | | $C_L$ = 50 pF | 85 | 120 | - | 75 | - | 75 | - | MHz |
| $t_W$ | pulse width | CP HIGH or LOW; see Figure 6 | | | | | | | | |
| | | $V_{CC}$ = 3.0 V to 3.6 V | 5.0 | - | - | 5.0 | - | 5.0 | - | ns |
| | | $V_{CC}$ = 4.5 V to 5.5 V | 5.0 | - | - | 5.0 | - | 5.0 | - | ns |
| $t_{su}$ | set-up time | Dn, $\overline{E}$ to CP; see Figure 7 | | | | | | | | |
| | | $V_{CC}$ = 3.0 V to 3.6 V | 5.0 | - | - | 5.0 | - | 5.0 | - | ns |
| | | $V_{CC}$ = 4.5 V to 5.5 V | 4.5 | - | - | 4.5 | - | 4.5 | - | ns |
| $t_h$ | hold time | Dn, $\overline{E}$ to CP; see Figure 7 | | | | | | | | |
| | | $V_{CC}$ = 3.0 V to 3.6 V | 1.5 | - | - | 1.5 | - | 1.5 | - | ns |
| | | $V_{CC}$ = 4.5 V to 5.5 V | 2.0 | - | - | 2.0 | - | 2.0 | - | ns |
| $C_{PD}$ | power dissipation capacitance | $f_i$ = 1 MHz; $V_I$ = GND to $V_{CC}$ [3] | - | 20 | - | - | - | - | - | pF |

**Table 7. Dynamic characteristics** *…continued*

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

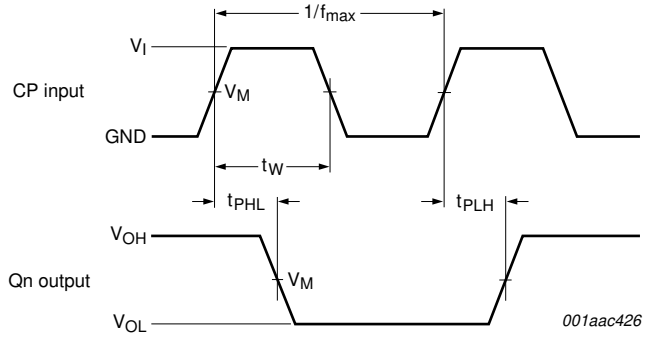
| Symbol | Parameter | Conditions | 25 °C | | | –40 °C to +85 °C | | –40 °C to +125 °C | | Unit |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Min | Typ[1] | Max | Min | Max | Min | Max | |
| **74AHCT377; $V_{CC}$ = 4.5 V to 5.5 V** | | | | | | | | | | |
| $t_{pd}$ | propagation delay | CP to Qn; see Figure 6 [2] | | | | | | | | |
| | | $C_L$ = 15 pF | - | 4.0 | 9.0 | 1.0 | 10.5 | 1.0 | 11.5 | ns |
| | | $C_L$ = 50 pF | - | 5.7 | 10.5 | 1.0 | 12.0 | 1.0 | 13.5 | ns |
| $f_{max}$ | maximum frequency | see Figure 6 | | | | | | | | |
| | | $C_L$ = 15 pF | 90 | 140 | - | 80 | - | 80 | - | MHz |
| | | $C_L$ = 50 pF | 85 | 130 | - | 75 | - | 75 | - | MHz |
| $t_W$ | pulse width | CP HIGH or LOW; see Figure 6 | 5.0 | - | - | 5.0 | - | 5.0 | - | ns |
| $t_{su}$ | set-up time | Dn, $\overline{E}$ to CP; see Figure 7 | 4.5 | - | - | 4.5 | - | 4.5 | - | ns |
| $t_h$ | hold time | Dn, $\overline{E}$ to CP; see Figure 7 | 2.0 | - | - | 2.0 | - | 2.0 | - | ns |
| $C_{PD}$ | power dissipation capacitance | $f_i$ = 1 MHz; $V_I$ = GND to $V_{CC}$ [3] | - | 23 | - | - | - | - | - | pF |

[1] Typical values are measured at nominal supply voltage ($V_{CC}$ = 3.3 V and $V_{CC}$ = 5.0 V).

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

[3] $C_{PD}$ is used to determine the dynamic power dissipation ($P_D$ 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:
$f_i$ = input frequency in MHz;
$f_o$ = output frequency in MHz;
$C_L$ = output load capacitance in pF;
$V_{CC}$ = supply voltage in V;
N = number of inputs switching;
$\Sigma(C_L \times V_{CC}^2 \times f_o)$ = sum of the outputs.

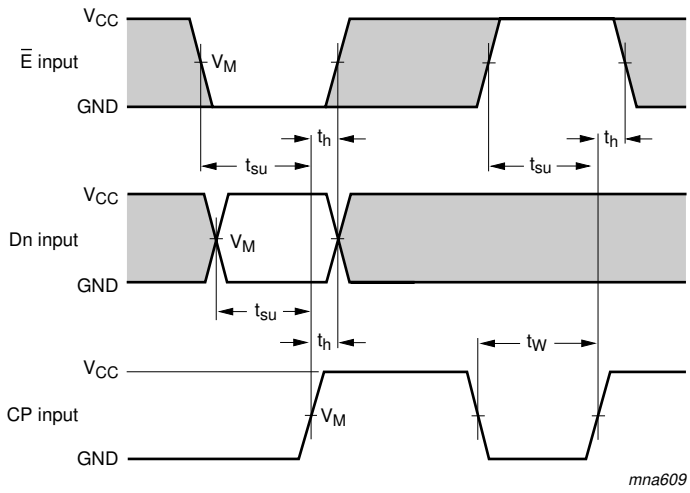
## 11. Waveforms




Measurement points are given in Table 8.

$V_{OL}$ and $V_{OH}$ are typical voltage output levels that occur with the output load.

**Fig 6. Clock pulse width, maximum frequency and input to output propagation delays**



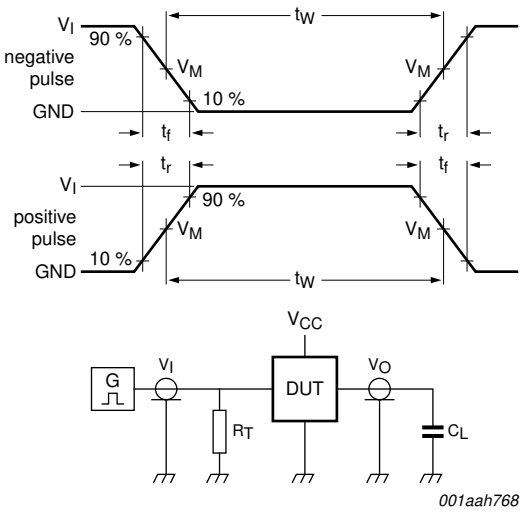

Measurement points are given in Table 8.

The shaded areas indicate when the input is permitted to change for predictable output performance.

**Fig 7. Data set-up and hold times**

**Table 8. Measurement points**

| Type | Input | Output |
|---|---|---|
| | $V_M$ | $V_M$ |
| 74AHC377 | $0.5 \times V_{CC}$ | $0.5 \times V_{CC}$ |
| 74AHCT377 | 1.5 V | $0.5 \times V_{CC}$ |




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.

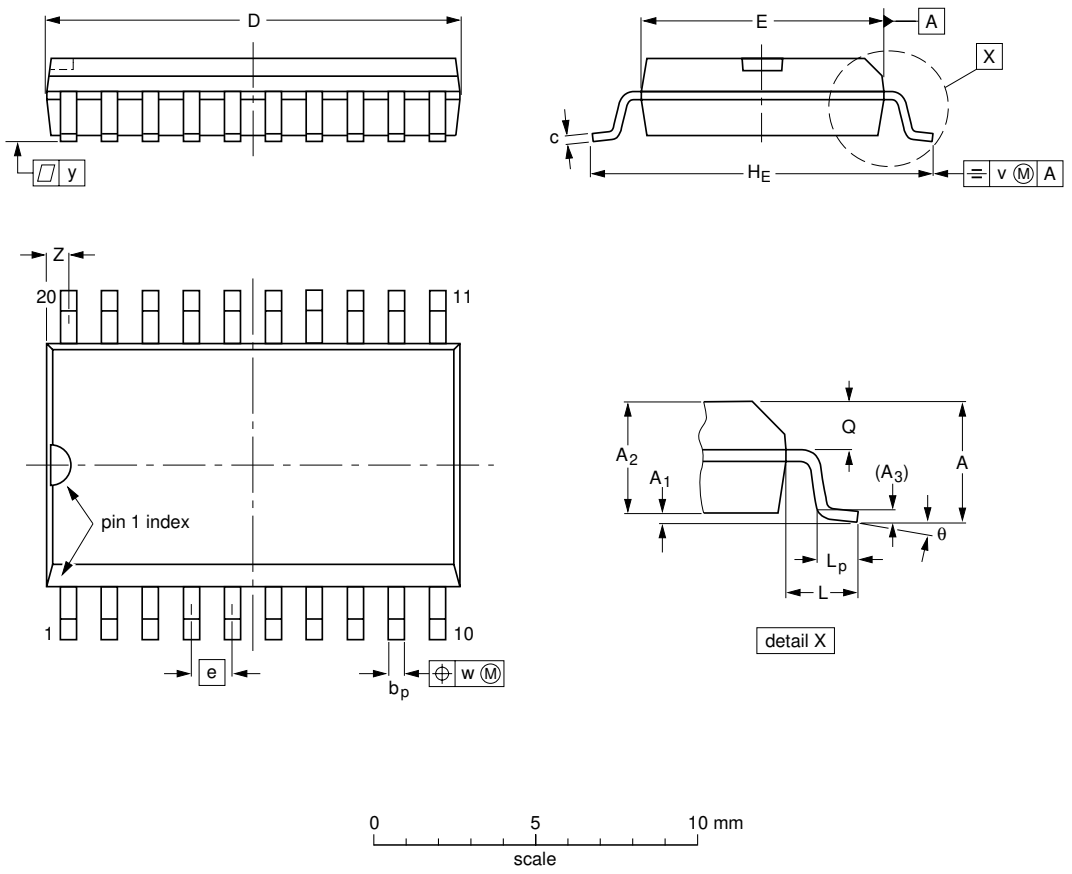
**Fig 8. Load circuitry for measuring switching times**

**Table 9. Test data**

| Type | Input | | Load | Test |
|---|---|---|---|---|
| | $V_I$ | $t_r$, $t_f$ | $C_L$ | |
| 74AHC377 | $V_{CC}$ | ≤ 3.0 ns | 15 pF, 50 pF | $t_{PLH}$, $t_{PHL}$ |
| 74AHCT377 | 3.0 V | ≤ 3.0 ns | 15 pF, 50 pF | $t_{PLH}$, $t_{PHL}$ |

## 12. Package outline

**SO20: plastic small outline package; 20 leads; body width 7.5 mm** **SOT163-1**




**DIMENSIONS (inch dimensions are derived from the original mm dimensions)**

| UNIT | A max. | $A_1$ | $A_2$ | $A_3$ | $b_p$ | c | $D^{(1)}$ | $E^{(1)}$ | e | $H_E$ | L | $L_p$ | Q | v | w | y | $Z^{(1)}$ | θ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| mm | 2.65 | 0.3<br>0.1 | 2.45<br>2.25 | 0.25 | 0.49<br>0.36 | 0.32<br>0.23 | 13.0<br>12.6 | 7.6<br>7.4 | 1.27 | 10.65<br>10.00 | 1.4 | 1.1<br>0.4 | 1.1<br>1.0 | 0.25 | 0.25 | 0.1 | 0.9<br>0.4 | 8°<br>0° |
| inches | 0.1 | 0.012<br>0.004 | 0.096<br>0.089 | 0.01 | 0.019<br>0.014 | 0.013<br>0.009 | 0.51<br>0.49 | 0.30<br>0.29 | 0.05 | 0.419<br>0.394 | 0.055 | 0.043<br>0.016 | 0.043<br>0.039 | 0.01 | 0.01 | 0.004 | 0.035<br>0.016 | |

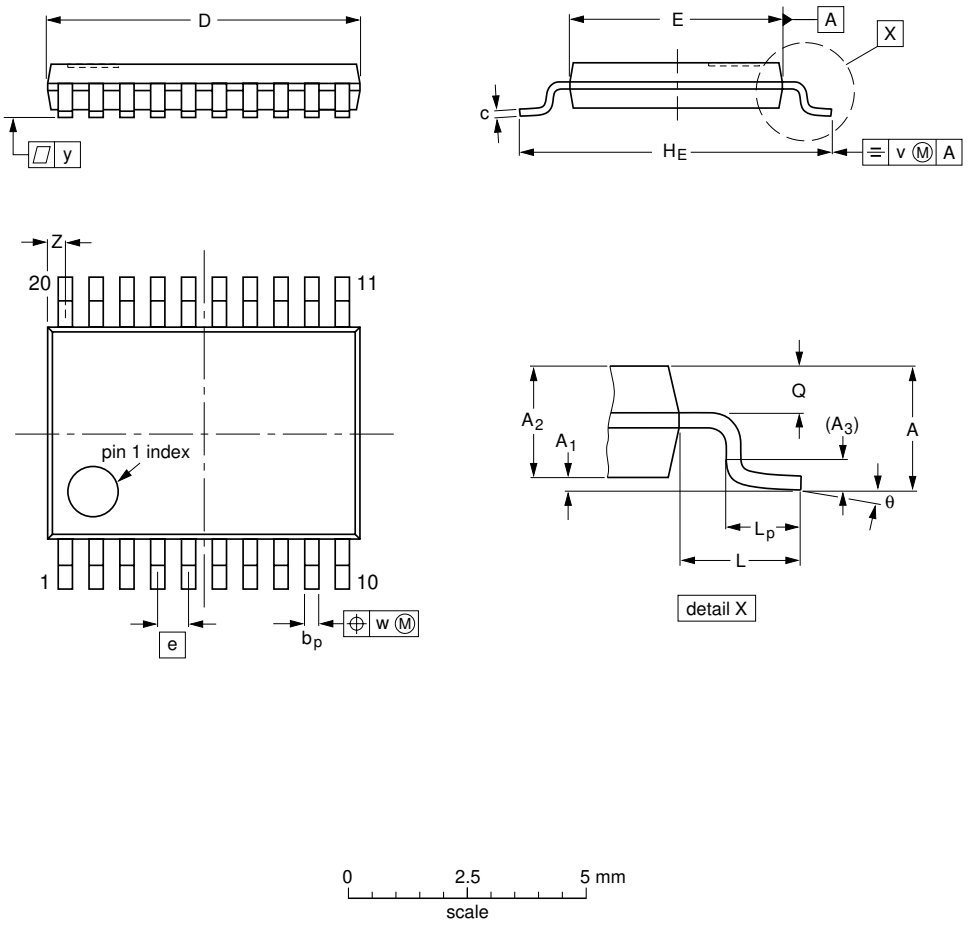
**Note**

1. Plastic or metal protrusions of 0.15 mm (0.006 inch) maximum per side are not included.

| OUTLINE VERSION | REFERENCES | | | | EUROPEAN PROJECTION | ISSUE DATE |
|---|---|---|---|---|---|---|
| | IEC | JEDEC | JEITA | | | |
| SOT163-1 | 075E04 | MS-013 | | | | ~~99-12-27~~<br>03-02-19 |

**Fig 9. Package outline SOT163-1 (SO20)**

**TSSOP20: plastic thin shrink small outline package; 20 leads; body width 4.4 mm** **SOT360-1**




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

| UNIT | A max. | $A_1$ | $A_2$ | $A_3$ | $b_p$ | c | D (1) | E (2) | e | $H_E$ | L | $L_p$ | Q | v | w | y | Z (1) | θ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| mm | 1.1 | 0.15<br>0.05 | 0.95<br>0.80 | 0.25 | 0.30<br>0.19 | 0.2<br>0.1 | 6.6<br>6.4 | 4.5<br>4.3 | 0.65 | 6.6<br>6.2 | 1 | 0.75<br>0.50 | 0.4<br>0.3 | 0.2 | 0.13 | 0.1 | 0.5<br>0.2 | 8°<br>0° |

**Notes**

1. Plastic or metal protrusions of 0.15 mm maximum per side are not included.
2. Plastic interlead protrusions of 0.25 mm maximum per side are not included.

| OUTLINE VERSION | REFERENCES | | | | EUROPEAN PROJECTION | ISSUE DATE |
|---|---|---|---|---|---|---|
| | IEC | JEDEC | JEITA | | | |
| SOT360-1 | | MO-153 | | | | ~~99-12-27~~<br>03-02-19 |

**Fig 10. Package outline SOT360-1 (TSSOP20)**

## 13. 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 |
| LSTTL | Low-power Schottky Transistor-Transistor Logic |
| MM | Machine Model |

## 14. Revision history

**Table 11. Revision history**

| Document ID | Release date | Data sheet status | Change notice | Supersedes |
|---|---|---|---|---|
| 74AHC_AHCT377_2 | 20080612 | Product data sheet | - | 74AHC_AHCT377_1 |
| Modifications: | • The format of this data sheet has been redesigned to comply with the new identity guidelines of NXP Semiconductors.<br>• Legal texts have been adapted to the new company name where appropriate.<br>• Table 6: the conditions for input leakage current have been changed. | | | |
| 74AHC_AHCT377_1 | 20000815 | Product specification | - | - |

# 15. Legal information

## 15.1 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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## 17. Contents





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