# 74HC574-Q100; 74HCT574-Q100

Octal D-type flip-flop; positive edge-trigger; 3-state

Rev. 6 — 5 August 2024

Product data sheet

## 1. General description

The 74HC574-Q100; 74HCT574-Q100 is an 8-bit positive-edge triggered D-type flip-flop with 3-state outputs. The device features a clock (CP) and output enable ( $\overline{OE}$ ) inputs. The flip-flops will store the state of their individual D-inputs that meet the set-up and hold time requirements on the LOW-to-HIGH clock (CP) transition. A HIGH on  $\overline{OE}$  causes the outputs to assume a high-impedance OFF-state. Operation of the  $\overline{OE}$  input does not affect the state of the flip-flops. Inputs include clamp diodes. This enables the use of current limiting resistors to interface inputs to voltages in excess of  $V_{CC}$ .

This product has been qualified to the Automotive Electronics Council (AEC) standard Q100 (Grade 1) and is suitable for use in automotive applications.

## 2. Features and benefits

- · Automotive product qualification in accordance with AEC-Q100 (Grade 1)
  - Specified from -40 °C to +85 °C and from -40 °C to +125 °C
- 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:
  - For 74HC574-Q100: CMOS level
  - For 74HCT574-Q100: TTL level
- 3-state non-inverting outputs for bus oriented applications
- 8-bit positive, edge-triggered register
- · Common 3-state output enable input
- ESD protection:
  - HBM: ANSI/ESDA/JEDEC JS-001 class 2 exceeds 2000 V
  - CDM: ANSI/ESDA/JEDEC JS-002 class C3 exceeds 1000 V
- DHVQFN package with Side-Wettable Flanks enabling Automated Optical Inspection (AOI) of solder joints

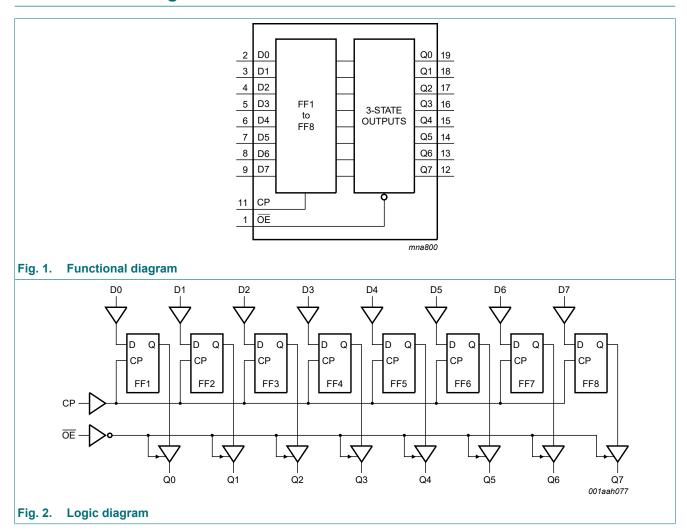


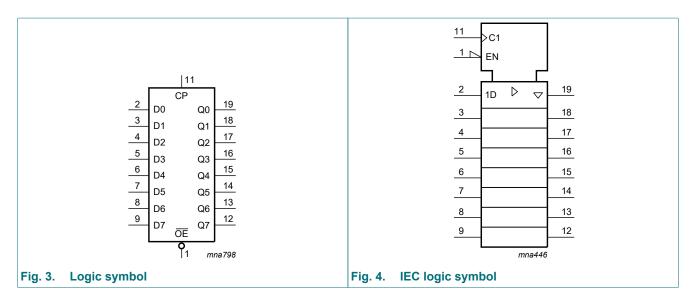
# 3. Ordering information

**Table 1. Ordering information** 

Type number	Package			
	Temperature range	Name	Description	Version
74HC574D-Q100 74HCT574D-Q100	-40 °C to +125 °C	SO20	plastic small outline package; 20 leads; body width 7.5 mm	SOT163-1
74HC574PW-Q100 74HCT574PW-Q100	-40 °C to +125 °C	TSSOP20	plastic thin shrink small outline package; 20 leads; body width 4.4 mm	SOT360-1
74HC574BQ-Q100	-40 °C to +125 °C	DHVQFN20	plastic dual in-line compatible thermal enhanced very thin quad flat package; no leads; 20 terminals; body 2.5 × 4.5 × 0.85 mm	SOT764-1

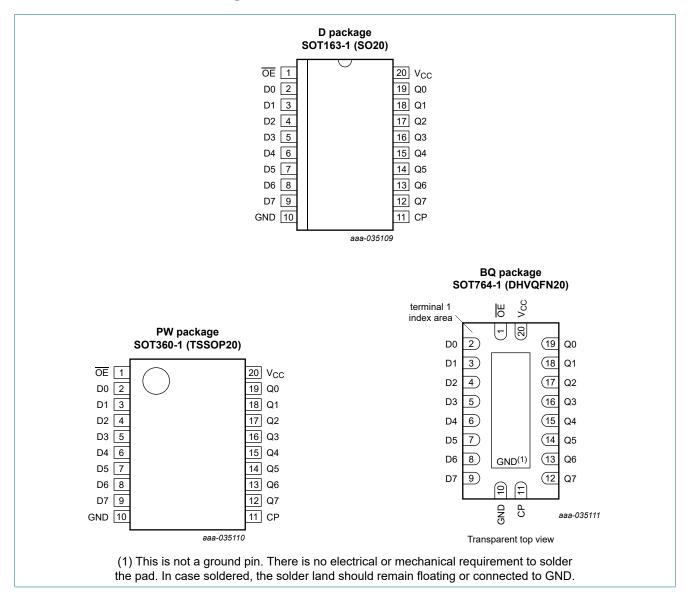
# 4. Functional diagram





# 5. Pinning information

## 5.1. Pinning



## 5.2. Pin description

Table 2. Pin description

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

# 6. Functional description

#### Table 3. Function table

H = HIGH voltage level; h = HIGH voltage level one setup time prior to the HIGH-to-LOW CP transition;

L = LOW voltage level; I = LOW voltage level one setup time prior to the HIGH-to-LOW CP transition;

 $Z = high-impedance OFF-state; \uparrow = LOW-to-HIGH clock transition.$ 

Operating mode	Input		Internal	Output	
	OE	СР	Dn	flip-flop	Qn
Load and read register	L	<b>↑</b>	1	L	L
	L	1	h	Н	Н
Load register and disable output	Н	<b>↑</b>	I	L	Z
	Н	<b>↑</b>	h	Н	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	$V_{I} < -0.5 \text{ V or } V_{I} > V_{CC} + 0.5 \text{ V}$	-	±20	mA
I <sub>OK</sub>	output clamping current	$V_{O} < -0.5 \text{ V or } V_{O} > V_{CC} + 0.5 \text{ V}$	-	±20	mA
Io	output current	$V_{O} = -0.5 \text{ V to } (V_{CC} + 0.5 \text{ V})$	-	±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	[1]	-	500	mW

<sup>[1]</sup> For SOT163-1 (SO20) package: P<sub>tot</sub> derates linearly with 12.3 mW/K above 109 °C. For SOT360-1 (TSSOP20) package: P<sub>tot</sub> derates linearly with 10.0 mW/K above 100 °C. For SOT764-1 (DHVQFN20) package: P<sub>tot</sub> derates linearly with 12.9 mW/K above 111 °C.

# 8. Recommended operating conditions

#### Table 5. Recommended operating conditions

Voltages are referenced to GND (ground = 0 V)

Symbol	Parameter	Conditions	74H	1C574-Q	100	74H	CT574-C	2100	Unit
			Min	Тур	Max	Min	Тур	Max	
V <sub>CC</sub>	supply voltage		2.0	5.0	6.0	4.5	5.0	5.5	V
VI	input voltage		0	-	V <sub>CC</sub>	0	-	V <sub>CC</sub>	V
Vo	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

74HC\_HCT574\_Q100

# 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 t	o +85 °C	-40 °C to	+125 °C	Unit
			Min	Тур	Max	Min	Max	Min	Max	
74HC57	4-Q100									
V <sub>IH</sub>	HIGH-level	V <sub>CC</sub> = 2.0 V	1.5	1.2	-	1.5	-	1.5	-	V
	input voltage	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	V <sub>CC</sub> = 2.0 V	-	0.8	0.5	-	0.5	-	0.5	V
	input voltage	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	V <sub>I</sub> = V <sub>IH</sub> or V <sub>IL</sub>								
	output voltage	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
		$I_O = -7.8 \text{ mA}; V_{CC} = 6.0 \text{ V}$	5.48	5.81	-	5.34	-	5.2	-	V
V <sub>OL</sub>	LOW-level	$V_I = V_{IH}$ or $V_{IL}$								
	output voltage	$I_O = 20 \mu A; V_{CC} = 2.0 V$	-	0	0.1	-	0.1	-	0.1	V
		$I_O = 20 \mu A; V_{CC} = 4.5 V$	-	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
l <sub>l</sub>	input leakage current	$V_I = V_{CC}$ or GND; $V_{CC} = 6.0 \text{ V}$	-	-	±0.1	-	±1.0	-	±1.0	μA
l <sub>OZ</sub>	OFF-state output current	$V_I = V_{IH}$ or $V_{IL}$ ; $V_{CC} = 6.0 \text{ V}$ ; $V_O = V_{CC}$ or GND	-	-	±0.5	-	±5.0	-	±10.0	μA
I <sub>CC</sub>	supply current	$V_I = V_{CC}$ or GND; $I_O = 0$ A; $V_{CC} = 6.0 \text{ V}$	-	-	8.0	-	80	-	160	μA
C <sub>I</sub>	input capacitance		-	3.5	-	-	-	-	-	pF

Symbol	Parameter	Conditions		25 °C		-40 °C t	o +85 °C	-40 °C to	+125 °C	Unit
			Min	Тур	Max	Min	Max	Min	Max	
74HCT5	74-Q100		'							
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	$V_I = V_{IH}$ or $V_{IL}$ ; $V_{CC} = 4.5 V$								
	output voltage	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
$V_{OL}$	LOW-level	$V_I = V_{IH}$ or $V_{IL}$ ; $V_{CC} = 4.5 V$								
	output voltage	Ι <sub>Ο</sub> = 20 μΑ	-	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	$V_I = V_{CC}$ or GND; $V_{CC} = 5.5 \text{ V}$	-	-	±0.1	-	±1.0	-	±1.0	μA
I <sub>OZ</sub>	OFF-state output current	$V_I = V_{IH}$ or $V_{IL}$ ; $V_{CC} = 5.5$ V; $V_O = V_{CC}$ or GND	-	-	±0.5	-	±5.0	-	±10	μΑ
I <sub>CC</sub>	supply current	$V_I = V_{CC}$ or GND; $I_O = 0$ A; $V_{CC} = 5.5 \text{ V}$	-	-	8.0	-	80	-	160	μΑ
ΔI <sub>CC</sub>	additional supply current	$V_I = V_{CC} - 2.1 \text{ V};$ other inputs at $V_{CC}$ or GND; $V_{CC} = 4.5 \text{ V}$ to 5.5 V; $I_O = 0 \text{ A}$								
		per input pin; Dn inputs	-	50	180	-	225	-	245	μΑ
		per input pin; OE input	-	125	450	-	563	-	613	μΑ
		per input pin; CP input	-	150	540	-	675	-	735	μΑ
Cı	input capacitance	tance		3.5	-	-	-	-	-	pF

# 10. Dynamic characteristics

#### **Table 7. Dynamic characteristics**

Voltages are referenced to GND (ground = 0 V);  $C_L$  = 50 pF unless otherwise specified; for test circuit see Fig. 8.

Symbol	Parameter	Conditions		25 °C		-40 °C t	o +85 °C	-40 °C to +125 °C		Unit
			Min	Тур	Max	Min	Max	Min	Max	
74HC57	4-Q100						'	'		
t <sub>pd</sub>	propagation	CP to Qn; see Fig. 5	[]							
	delay	V <sub>CC</sub> = 2.0 V	-	47	150	-	190	-	225	ns
		V <sub>CC</sub> = 4.5 V	-	17	30	-	35	-	45	ns
		V <sub>CC</sub> = 5 V; C <sub>L</sub> = 15 pF	-	14	-	-	-	-	-	ns
		V <sub>CC</sub> = 6.0 V	-	14	26	-	33	-	38	ns
t <sub>en</sub>	enable time	OE to Qn; see Fig. 7 [2	2]							
		V <sub>CC</sub> = 2.0 V	-	44	140	-	175	-	210	ns
		V <sub>CC</sub> = 4.5 V	-	16	28	-	35	-	42	ns
		V <sub>CC</sub> = 6.0 V	-	13	24	-	30	-	36	ns
t <sub>dis</sub>	disable time	OE to Qn; see Fig. 7	3]							
		V <sub>CC</sub> = 2.0 V	-	39	125	-	155	-	190	ns
		V <sub>CC</sub> = 4.5 V	-	14	25	-	31	-	38	ns
		V <sub>CC</sub> = 6.0 V	-	11	21	-	26	-	32	ns
t <sub>t</sub>	transition	Qn; see Fig. 5	1]							
	time	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
t <sub>W</sub>	pulse width	CP HIGH or LOW; see Fig. 6								
		V <sub>CC</sub> = 2.0 V	80	14	-	100	-	120	-	ns
		V <sub>CC</sub> = 4.5 V	16	5	-	20	-	24	-	ns
		V <sub>CC</sub> = 6.0 V	14	4	-	17	-	20	-	ns
t <sub>su</sub>	set-up time	Dn to CP; see Fig. 6								
		V <sub>CC</sub> = 2.0 V	60	6	-	75	-	90	-	ns
		V <sub>CC</sub> = 4.5 V	12	2	-	15	-	18	-	ns
		V <sub>CC</sub> = 6.0 V	10	2	-	13	-	15	-	ns
t <sub>h</sub>	hold time	Dn to CP; see Fig. 6								
		V <sub>CC</sub> = 2.0 V	5	0	-	5	-	5	-	ns
		V <sub>CC</sub> = 4.5 V	5	0	-	5	-	5	-	ns
		V <sub>CC</sub> = 6.0 V	5	0	-	5	-	5	-	ns
f <sub>max</sub>	maximum	CP; see Fig. 5								
	frequency	V <sub>CC</sub> = 2.0 V	6.0	37	-	4.8	-	4.0	-	MHz
		V <sub>CC</sub> = 4.5 V	30	112	-	24	-	20	-	MHz
		V <sub>CC</sub> = 5 V; C <sub>L</sub> = 15 pF	-	123	-	-	-	-	-	MHz
		V <sub>CC</sub> = 6.0 V	35	133	-	28	-	24	-	MHz
C <sub>PD</sub>	power dissipation capacitance	$C_L = 50 \text{ pF; } f = 1 \text{ MHz;}$ $V_I = \text{GND to } V_{CC}$	5] -	22	-	-	-	-	-	pF

Symbol	Parameter	Conditions		25 °C		-40 °C t	o +85 °C	-40 °C to	Unit	
			Min	Тур	Max	Min	Max	Min	Max	
74HCT5	74-Q100									
t <sub>pd</sub>	propagation	CP to Qn; see Fig. 5 [1	]							
	delay	V <sub>CC</sub> = 4.5 V	-	18	33	-	41	-	50	ns
		V <sub>CC</sub> = 5 V; C <sub>L</sub> = 15 pF	-	15	-	-	-	-	-	ns
t <sub>en</sub>	enable time	OE to Qn; see Fig. 7 [2	]							
		V <sub>CC</sub> = 4.5 V	-	19	33	-	41	-	50	ns
t <sub>dis</sub>	disable time	OE to Qn; see Fig. 7 [3	]							
		V <sub>CC</sub> = 4.5 V	-	16	28	-	35	-	42	ns
t <sub>t</sub>	transition	Qn; see <u>Fig. 5</u> [4	]							
	time	V <sub>CC</sub> = 4.5 V	-	5	12	-	15	-	18	ns
t <sub>W</sub>	pulse width	CP HIGH or LOW; see Fig. 6								
		V <sub>CC</sub> = 4.5 V	16	7	-	20	-	24	-	ns
t <sub>su</sub>	set-up time	Dn to CP; see Fig. 6								
		V <sub>CC</sub> = 4.5 V	12	3	-	15	-	18	-	ns
t <sub>h</sub>	hold time	Dn to CP; see Fig. 6								
		V <sub>CC</sub> = 4.5 V	5	-1	-	5	-	5	-	ns
f <sub>max</sub>	maximum	CP; see Fig. 5								
	frequency	V <sub>CC</sub> = 4.5 V	30	69	-	24	-	20	-	MHz
		V <sub>CC</sub> = 5 V; C <sub>L</sub> = 15 pF	-	76	-	-	-	-	-	MHz
C <sub>PD</sub>	power dissipation capacitance	$C_L = 50 \text{ pF}; f = 1 \text{ MHz}; V_I = \text{GND to V}_{CC} - 1.5 \text{ V}$	] -	25	-	-	-	-	-	pF

- [1]  $t_{pd}$  is the same as  $t_{PLH}$  and  $t_{PHL}$ .
- [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>i</sub> is the same as t<sub>TLL</sub> and t<sub>TLL</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:

$$P_D = C_{PD} \times V_{CC}^2 \times f_i \times N + \Sigma (C_1 \times V_{CC}^2 \times f_o)$$
 where:

 $f_i$  = input frequency in MHz;

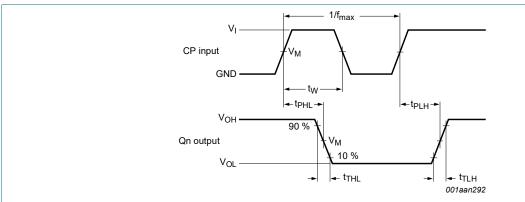
f<sub>o</sub> = output frequency in MHz;

C<sub>L</sub> = output load capacitance in pF;

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

N = number of inputs switching;  $\Sigma(C_L \times V_{CC}^2 \times f_0) = \text{sum of outputs.}$ 

#### 10.1. Waveforms and test circuit



Measurement points are given in <u>Table 8</u>.

V<sub>OL</sub> and V<sub>OH</sub> are typical voltage output levels that occur with the output load.

Fig. 5. Propagation delay input (CP) to output (Qn), output transition time, clock input (CP) pulse width and the maximum frequency (CP)

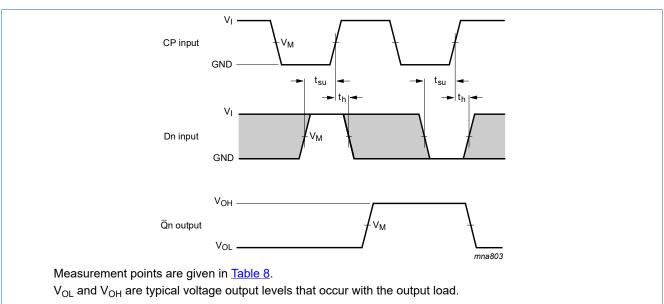
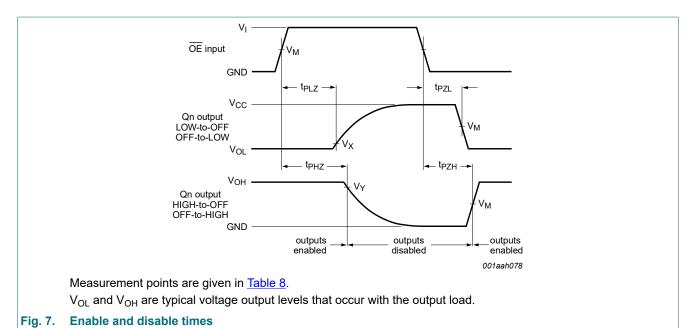
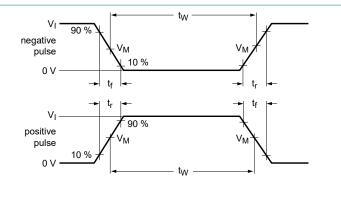


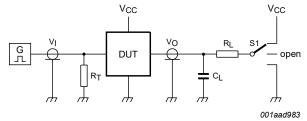
Fig. 6. The data input (D) to clock input (CP) set-up times and clock input (CP) to data input (D) hold times



**Table 8. Measurement points** 

iable of measuremen	pointo										
Туре	Input	Output	Output								
	V <sub>M</sub>	V <sub>M</sub>	V <sub>X</sub>	V <sub>Y</sub>							
74HC574-Q100	0.5 × V <sub>CC</sub>	0.5 × V <sub>CC</sub>	0.1 × V <sub>CC</sub>	0.9 × V <sub>CC</sub>							
74HCT574-Q100	1.3 V	1.3 V	0.1 × V <sub>CC</sub>	0.9 × V <sub>CC</sub>							





Test data is given in Table 9.

Definitions test circuit:

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

C<sub>L</sub> = Load capacitance including jig and probe capacitance;

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

S1 = Test selection switch.

### Fig. 8. Test circuit for measuring switching times

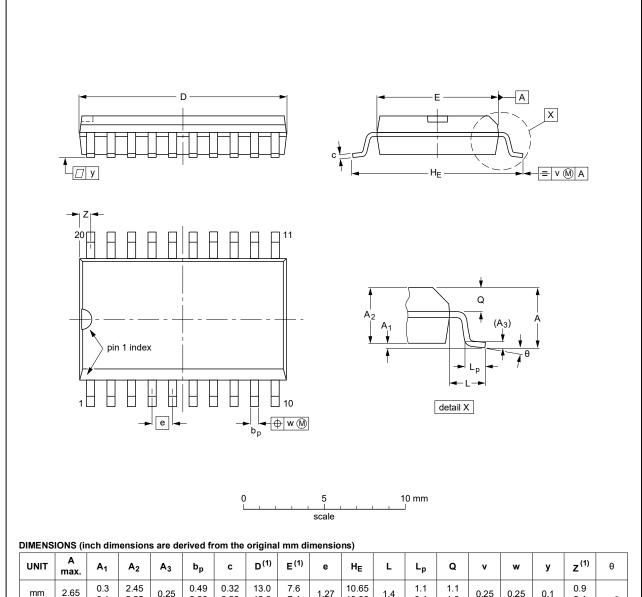
Table 9. Test data

Туре	Input		Load		S1 position				
	V <sub>I</sub>	t <sub>r</sub> , t <sub>f</sub>	CL	$R_L$	t <sub>PHL</sub> , t <sub>PLH</sub>	t <sub>PZH</sub> , t <sub>PHZ</sub>	$t_{PZL}, t_{PLZ}$		
74HC574-Q100	V <sub>CC</sub>	6 ns	15 pF, 50 pF	1 kΩ	open	GND	V <sub>CC</sub>		
74HCT574-Q100	3 V	6 ns	15 pF, 50 pF	1 kΩ	open	GND	V <sub>CC</sub>		

# 11. Package outline

#### SO20: plastic small outline package; 20 leads; body width 7.5 mm

SOT163-1



UNIT	A max.	A <sub>1</sub>	A <sub>2</sub>	A <sub>3</sub>	bp	С	D <sup>(1)</sup>	E <sup>(1)</sup>	е	HE	L	Lp	Q	v	w	у	z <sup>(1)</sup>	θ
mm	2.65	0.3 0.1	2.45 2.25	0.25	0.49 0.36	0.32 0.23	13.0 12.6	7.6 7.4	1.27	10.65 10.00	1.4	1.1 0.4	1.1 1.0	0.25	0.25	0.1	0.9 0.4	8°
inches	0.1	0.012 0.004	0.096 0.089	0.01	0.019 0.014	0.013 0.009	0.51 0.49	0.30 0.29	0.05	0.419 0.394	0.055	0.043 0.016	0.043 0.039	0.01	0.01	0.004	0.035 0.016	0°

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

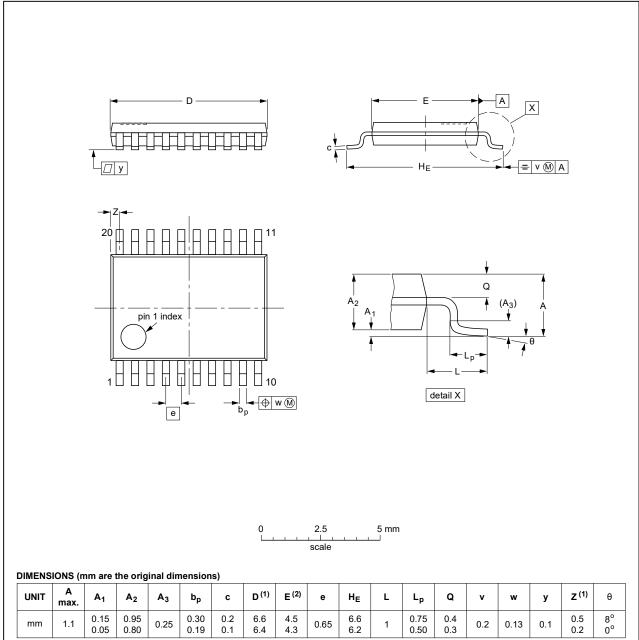
OUTLINE VERSION	REFERENCES			EUROPEAN	ISSUE DATE	
	IEC	JEDEC	JEITA		PROJECTION	1330E DATE
SOT163-1	075E04	MS-013				<del>99-12-27</del> 03-02-19

Package outline SOT163-1 (SO20)

74HC\_HCT574\_Q100

#### TSSOP20: plastic thin shrink small outline package; 20 leads; body width 4.4 mm

SOT360-1



## 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	REFERENCES				EUROPEAN	ISSUE DATE
VERSION	IEC	JEDEC	JEITA		PROJECTION	ISSUE DATE
SOT360-1		MO-153				<del>99-12-27</del> 03-02-19

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

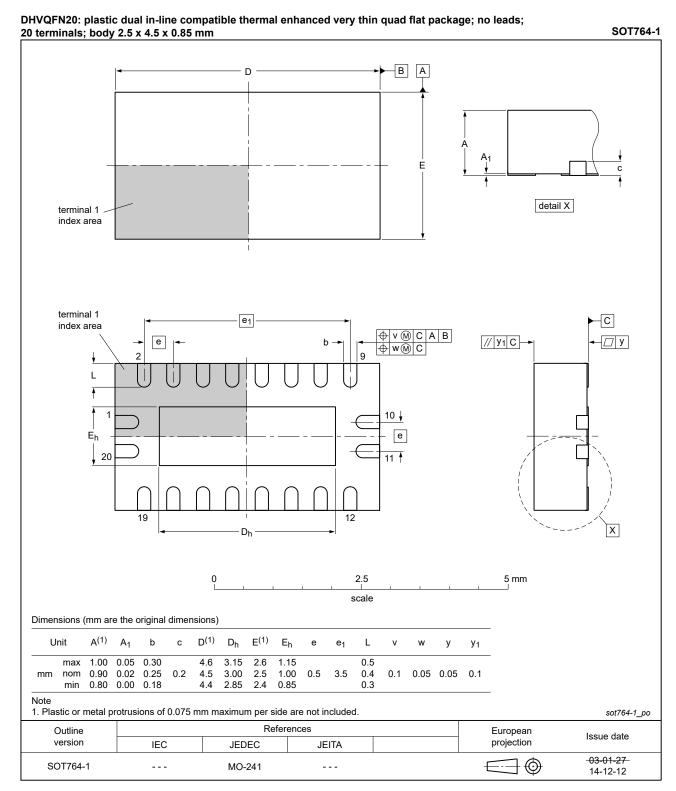


Fig. 11. Package outline SOT764-1 (DHVQFN20)

# 12. Abbreviations

#### **Table 10. Abbreviations**

Acronym	Description
ANSI	American National Standards Institute
CDM	Charged Device Model
CMOS	Complementary Metal Oxide Semiconductor
DUT	Device Under Test
ESD	ElectroStatic Discharge
ESDA	ElectroStatic Discharge Association
НВМ	Human Body Model
JEDEC	Joint Electron Device Engineering Council
TTL	Transistor-Transistor Logic

# 13. Revision history

### **Table 11. Revision history**

Document ID	Release date	Data sheet status	Change notice	Supersedes		
74HC_HCT574_Q100 v.6	20240805	Product data sheet	-	74HC_HCT574_Q100 v.5		
Modifications:	<u>Section 2</u> : ESD specification updated according to the latest JEDEC standard.					
74HC_HCT574_Q100 v.5	20221020	Product data sheet	-	74HC_HCT574_Q100 v.4		
Modifications:	Section 5.1	Section 5.1 updated.				
74HC_HCT574_Q100 v.4	20220713	Product data sheet	-	74HC_HCT574_Q100 v.3		
Modifications:	Type number	Type number 74HC574BQ-Q100 (SOT764-1/DHVQFN20) added.				
74HC_HCT574_Q100 v.3	20210730	Product data sheet	-	74HC_HCT574_Q100 v.2		
Modifications:	guidelines c • Legal texts • Section 1 ar	<ul> <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>Section 1 and Section 2 updated.</li> <li>Section 7: Derating values for P<sub>tot</sub> total power dissipation updated.</li> </ul>				
74HC_HCT574_Q100 v.2	20150126	Product data sheet	-	74HC_HCT574_Q100 v.1		
Modifications:	<u>Table 7</u> : Power dissipation capacitance condition for 74HCT574-Q100 is corrected.					
74HC_HCT574_Q100 v.1	20120802	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.

- Please consult the most recently issued document before initiating or completing a design.
- [2] The term 'short data sheet' is explained in section "Definitions".
- 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 <a href="https://www.nexperia.com">https://www.nexperia.com</a>.

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#### Octal D-type flip-flop; positive edge-trigger; 3-state

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