74AXP2T08-Q100

Dual supply, dual 2-input AND gate

Rev. 2 — 27 March 2019 Product data sheet

1. General description

The 74AXP2T08-Q100 is a dual supply, dual 2-input AND gate. It features four inputs (nA and nB), two outputs (nY) and dual supply pins (V_{CCI} and V_{CCO}). The inputs are referenced to V_{CCI} and the outputs are referenced to V_{CCO}. All inputs can be connected directly to V_{CCI} or GND. V_{CCI} can be supplied at any voltage between 0.7 V and 2.75 V and V_{CCO} can be supplied at any voltage between 1.2 V and 5.5 V. This feature allows voltage level translation.

Schmitt-trigger action at all inputs makes the circuit tolerant of slower input rise and fall times.

This device ensures very low static and dynamic power consumption across the entire supply range and is fully specified for partial power down applications using I_{OFF}. The I_{OFF} circuitry disables the output, preventing the potentially damaging backflow current through the device when it is powered down.

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:
  - V_{CCI}: 0.7 V to 2.75 V
  - V_{CCO}: 1.2 V to 5.5 V
- Low input capacitance; C_I = 0.6 pF (typical)
- Low output capacitance; C_O = 1.8 pF (typical)
- Low dynamic power consumption; C_{PD} = 0.5 pF at V_{CCI} = 1.2 V (typical)
- Low dynamic power consumption; C_{PD} = 7.1 pF at V_{CCO} = 3.3 V (typical)
- Low static power consumption; I_{CCI} = 0.5 μA (85 °C maximum)
- Low static power consumption; I_{CCO} = 1.8 μA (85 °C maximum)
- High noise immunity
- Complies with JEDEC standard:
  - JESD8-12A.01 (1.1 V to 1.3 V; nA, nB inputs)
  - JESD8-11A.01 (1.4 V to 1.6 V)
  - JESD8-7A (1.65 V to 1.95 V)
  - JESD8-5A.01 (2.3 V to 2.7 V)
  - JESD8-C (2.7 V to 3.6 V; nY outputs)
  - JESD12-6 (4.5 V to 5.5 V; nY outputs)
- ESD protection:
  - MIL-STD-883, method 3015 Class 2. Exceeds 2 kV
  - HBM ANSI/ESDA/JEDEC JS-001 Class 2 exceeds 2 kV
  - CDM JESD22-C101E exceeds 1000 V
- Latch-up performance exceeds 100 mA per JESD78D Class II
- Inputs accept voltages up to 2.75 V
- Low noise overshoot and undershoot < 10% of V_{CCO}
- I_{OFF} circuitry provides partial power-down mode operation

nexperia

3. Ordering information

Table 1. Ordering information

Type number	Package			
	Temperature range	Name	Description	Version
74AXP2T08DP-Q100	-40 °C to +125 °C	TSSOP10	plastic thin shrink small outline package; 10 leads; body width 3 mm	SOT552-1

4. Marking

Table 2. Marking

Type number	Marking code[1]
74AXP2T08DP-Q100	r8

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

5. Functional diagram

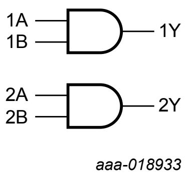


Fig. 1. Logic symbol

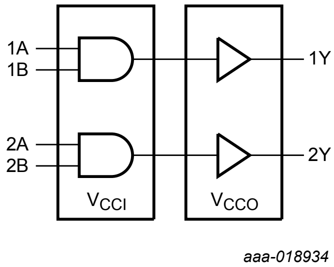


Fig. 2. Logic diagram

6. Pinning information

6.1. Pinning

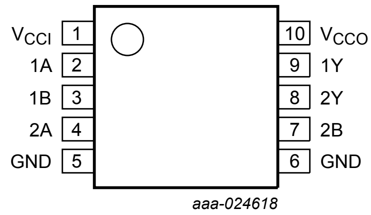


Fig. 3. Pin configuration SOT552-1 (TSSOP10)

6.2. Pin description

Table 3. Pin description

Symbol	Pin	Description
V_{CCI}	1	input supply voltage
1A, 2A	2, 4	data input
1B, 2B	3, 7	data input
GND[1]	5, 6	ground (0 V)
1Y, 2Y	9, 8	data output
V_{CCO}	10	output supply voltage

[1] All GND pins must be connected to ground (0 V).

7. Functional description

Table 4. Function table

H = HIGH voltage level; L = LOW voltage level; X = don't care.

Supply voltage		Input		Output
V_{CCI}	V_{CCO}	nA	nB	nY
0.7 V to 2.75 V	1.2 V to 5.5 V	L	X	L
0.7 V to 2.75 V	1.2 V to 5.5 V	X	L	L
0.7 V to 2.75 V	1.2 V to 5.5 V	H	H	H
GND	1.2 V to 5.5 V	X	X	Z
0.7 V to 2.75 V	GND	X	X	Z
GND	GND	X	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_{CCI}	input supply voltage			-0.5	3.3	V
V_{CCO}	output supply voltage			-0.5	6.0	V
I_{IK}	input clamping current	$V_I < 0$ V		-50	-	mA
V_I	input voltage		[1]	-0.5	3.3	V
I_{OK}	output clamping current	$V_O < 0$ V		-50	-	mA
V_O	output voltage	Active mode	[1][2]	-0.5	V_{CCO} + 0.5	V
		Power-down or 3-state mode	[1]	-0.5	6.0	V
I_O	output current	V_O = 0 V to V_{CCO}		-	±25	mA
I_{CCI}	input supply current			-	50	mA
I_{CCO}	output supply current			-	50	mA
I_{GND}	ground current			-50	-	mA
T_{stg}	storage temperature			-65	+150	°C
P_{tot}	total power dissipation	T_{amb} = -40 °C to +125 °C	[3]	-	250	mW

[1] The minimum input and output voltage ratings may be exceeded if the input and output current ratings are observed.
[2] V_{CCO} + 0.5 V should not exceed 6.0 V.
[3] For SOT552-1 package: P_{tot} derates linearly with 8.3 mW/K above 120 °C.

9. Recommended operating conditions

Table 6. Recommended operating conditions

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

Symbol	Parameter	Conditions	Min	Max	Unit
V_{CCI}	input supply voltage		0.7	2.75	V
V_{CCO}	output supply voltage		1.2	5.5	V
V_I	input voltage		0	2.75	V
V_O	output voltage	Active mode	0	V_{CCO}	V
		Power-down or 3-state mode	0	5.5	V
T_{amb}	ambient temperature		-40	+125	°C
$\Delta t/\Delta V$	input transition rise and fall rate	V_{CCI} = 0.7 V to 2.75 V	0	200	ns/V

10. Static characteristics

Table 7. Static characteristics

At recommended operating conditions, unless otherwise specified; voltages are referenced to GND (ground = 0 V).

Symbol	Parameter	Conditions		T_{amb} = -40 °C to +125 °C				Unit
			Min	Typ 25 °C	Max 25 °C	Max 85 °C	Max 125 °C	
V_{IH}	HIGH-level input voltage	V_{CCI} = 0.75 V to 0.85 V	$0.75V_{CCI}$	-	-	-	-	V
		V_{CCI} = 1.1 V to 1.95 V	$0.65V_{CCI}$	-	-	-	-	V
		V_{CCI} = 2.3 V to 2.7 V	1.6	-	-	-	-	V
V_{IL}	LOW-level input voltage	V_{CCI} = 0.75 V to 0.85 V	-	-	$0.25V_{CCI}$	$0.25V_{CCI}$	$0.25V_{CCI}$	V
		V_{CCI} = 1.1 V to 1.95 V	-	-	$0.35V_{CCI}$	$0.35V_{CCI}$	$0.35V_{CCI}$	V
		V_{CCI} = 2.3 V to 2.7 V	-	-	0.7	0.7	0.7	V
V_{OH}	HIGH-level output voltage	I_O = -2 mA; V_{CCO} = 1.2 V [1]	-	1.05	-	-	-	V
		I_O = -3 mA; V_{CCO} = 1.4 V	1.05	-	-	-	-	V
		I_O = -4.5 mA; V_{CCO} = 1.65 V	1.2	-	-	-	-	V
		I_O = -8 mA; V_{CCO} = 2.3 V	1.7	-	-	-	-	V
		I_O = -10 mA; V_{CCO} = 3.0 V	2.2	-	-	-	-	V
		I_O = -12 mA; V_{CCO} = 4.5 V	3.7	-	-	-	-	V
V_{OL}	LOW-level output voltage	I_O = 2 mA; V_{CCO} = 1.2 V [1]	-	0.18	-	-	-	V
		I_O = 3 mA; V_{CCO} = 1.4 V	-	-	0.35	0.35	0.35	V
		I_O = 4.5 mA; V_{CCO} = 1.65 V	-	-	0.45	0.45	0.45	V
		I_O = 8 mA; V_{CCO} = 2.3 V	-	-	0.7	0.7	0.7	V
		I_O = 10 mA; V_{CCO} = 3.0 V	-	-	0.8	0.8	0.8	V
		I_O = 12 mA; V_{CCO} = 4.5 V	-	-	0.8	0.8	0.8	V
I_I	input leakage current	V_I = 0 V to 2.75 V; V_{CCI} = 0 V to 2.75 V [1]	-	±0.001	±0.1	±0.5	±1.0	μA
I_{OZ}	OFF-state output current	V_O = 0 V to 5.5 V; V_{CCO} = 1.2 V to 5.5 V	-	±0.001	±0.1	±0.5	±2.0	μA
I_{OFF}	power-off leakage current	input; V_I = 0 V to 2.75 V; V_{CCI} = 0 V; V_{CCO} = 0 V to 5.5 V [1]	-	±0.01	±0.1	±0.5	±2.0	μA
		output; V_O = 0 V to 5.5 V; V_{CCO} = 0 V; V_{CCI} = 0 V to 2.75 V; V_I = 0 V to 2.75 V [1]	-	±0.01	±0.1	±0.5	±2.0	μA
ΔI_{OFF}	additional power-off leakage current	input; V_I = 0 V or 2.75 V; V_{CCI} = 0 V to 0.1 V; V_{CCO} = 0 V to 5.5 V [1]	-	±0.02	±0.1	±0.5	±2.0	μA
		output; V_O = 0 V or 5.5 V; V_{CCO} = 0 V to 0.1 V; V_{CCI} = 0 V to 2.75 V; V_I = 0 V or 2.75 V [1]	-	±0.02	±0.1	±0.5	±2.0	μA

[1] Typical values are measured at V_{CCI} = V_{CCO} = 1.2 V unless otherwise specified.

Table 8. Static characteristics supply current

At recommended operating conditions, unless otherwise specified; voltages are referenced to GND (ground = 0 V).

Symbol	Parameter	Conditions		T_{amb} = -40 °C to +125 °C					Unit
				Typ 25 °C	Max 25 °C	Typ 85 °C	Max 85 °C	Max 125 °C	
I_{CCI}	input supply current	V_I = 0 V or V_{CCI};							
		V_{CCI} = 0.7 V to 1.3 V	[1]	1	100	10	300	500	nA
		V_{CCI} = 1.3 V to 2.75 V	[2]	1	100	20	500	1000	nA
		V_{CCI} = 2.75 V; V_{CCO} = 0 V		1	100	20	500	1000	nA
		V_{CCI} = 0 V; V_{CCO} = 5.5 V		1	100	1	100	500	nA
I_{CCO}	output supply current	V_I = 0 V or V_{CCI}; I_O = 0 A; see Table 9							
		V_{CCO} = 1.2 V to 3.6 V	[1]	0.001	1.0	0.01	1.2	1.3	μA
		V_{CCO} = 3.6 V to 5.5 V	[3]	0.8	1.5	1.0	1.8	2.0	μA
		V_{CCI} = 2.75 V; V_{CCO} = 0 V		0.001	0.1	0.003	0.2	0.5	μA
		V_{CCI} = 0 V; V_{CCO} = 3.6 V		0.2	0.6	0.3	0.8	1.2	μA
		V_{CCI} = 0 V; V_{CCO} = 5.5 V		0.4	0.8	0.5	1.0	1.5	μA
ΔI_{CCI}	additional input supply current	V_I = V_{CCI} - 0.5 V; V_{CCI} = 2.5 V		2	100	14	150	200	μA

[1] Typical values are measured at V_{CCI} = V_{CCO} = 1.2 V unless otherwise specified.
[2] Typical values are measured at V_{CCI} = V_{CCO} = 2.5 V.
[3] Typical values are measured at V_{CCI} = 1.2 V and V_{CCO} = 5.0 V.

Table 9. Typical output supply current (I_{CCO})

V_{CCI}	V_{CCO}							Unit
	0 V	**1.2 V**	**1.5 V**	**1.8 V**	**2.5 V**	**3.3 V**	**5.0 V**	
0 V	0	1	5	20	100	200	400	nA
0.8 V	1	10	150	200	300	500	800	nA
1.2 V	1	1	5	200	300	500	800	nA
1.5 V	1	1	5	100	300	500	800	nA
1.8 V	1	1	5	100	300	500	800	nA
2.5 V	1	1	5	100	100	500	800	nA

11. Dynamic characteristics

Table 10. Typical dynamic characteristics at T_{amb} = 25 °C

Voltages are referenced to GND (ground = 0 V); for test circuit see Fig. 11; for waveform see Fig. 4.

Symbol	Parameter	Conditions		V_{CCO}						Unit
				1.2 V	1.5 V	1.8 V	2.5 V	3.3 V	5.0 V	
C_{PD}	power dissipation capacitance	f_i = 1 MHz; R_L = ∞ Ω; V_I = 0 V to V_{CCI}	[1]							
		input supply	[2]							
		V_{CCI} = 0.8 V		0.4	0.4	0.4	0.4	0.4	0.4	pF
		V_{CCI} = 1.2 V		0.5	0.5	0.5	0.5	0.5	0.5	pF
		V_{CCI} = 1.5 V		0.5	0.5	0.5	0.5	0.5	0.5	pF
		V_{CCI} = 1.8 V		0.6	0.6	0.6	0.6	0.6	0.6	pF
		V_{CCI} = 2.5 V		0.8	0.8	0.8	0.8	0.8	0.8	pF
		output supply	[3]							
		V_{CCI} = 0.8 V		6.7	6.8	6.8	6.9	7.5	9.5	pF
		V_{CCI} = 1.2 V		6.8	6.9	7.0	7.0	7.1	7.6	pF
		V_{CCI} = 1.5 V		6.9	6.9	6.9	7.0	7.1	7.6	pF
		V_{CCI} = 1.8 V		6.9	6.9	6.9	7.0	7.2	7.6	pF
		V_{CCI} = 2.5 V		6.9	7.0	7.0	7.0	7.2	7.6	pF
C_I	input capacitance	V_I = 0 V or V_{CCI}; V_{CCI} = 0 V to 2.7 V		0.6	0.6	0.6	0.6	0.6	0.6	pF
C_O	output capacitance	V_O = 0 V; V_{CCO} = 0 V		1.8	1.8	1.8	1.8	1.8	1.8	pF

[1] C_{PD} is used to determine the dynamic power dissipation (P_D in μW).

[2] Power dissipated from input supply (V_{CCI})

$P_D = C_{PD} \times V_{CCI}^2 \times f_i \times N$ where:

C_{PD} = power dissipation capacitance of the input supply; V_{CCI} = input supply voltage in V; f_i = input frequency in MHz; N = number of inputs switching.

[3] Power dissipated from output supply (V_{CCO})

$P_D = (C_L + C_{PD}) \times V_{CCO}^2 \times f_o$ where:

C_L = load capacitance in pF; C_{PD} = power dissipation capacitance of the output supply; V_{CCO} = output supply voltage in V; f_o = output frequency in MHz.

Table 11. Dynamic characteristics

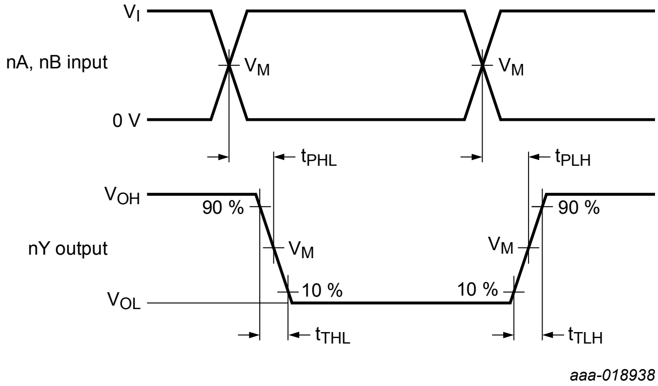
Voltages are referenced to GND (ground = 0 V); for test circuit, see Fig. 11; for waveform, see Fig. 4.

Symbol	Parameter	Conditions	V_{CCO} [1]																Unit
			1.2 V	1.5 V ± 0.1 V			1.8 V ± 0.15 V			2.5 V ± 0.2 V			3.3 V ± 0.3 V			5.0 V ± 0.5 V			
			Typ	Min	Typ	Max	Min	Typ	Max	Min	Typ	Max	Min	Typ	Max	Min	Typ	Max	
T_{amb} = 25 °C																			
t_{pd}	propagation delay	nA, nB to nY [2]																	
		V_{CCI} = 0.75 V to 0.85 V	23	3	18	73	3	16	69	2	14	69	2	14	77	2	15	89	ns
		V_{CCI} = 1.1 V to 1.3 V	16.9	3.1	10.8	19.9	2.8	8.7	15.9	2.4	6.9	10.9	2.2	6.3	9.6	2.1	6.0	9.1	ns
		V_{CCI} = 1.4 V to 1.6 V	16.0	2.8	9.9	18.2	2.5	7.8	13.2	2.1	6.0	9.1	2.0	5.4	8.2	1.9	5.0	7.7	ns
		V_{CCI} = 1.65 V to 1.95 V	15.6	2.7	9.5	17.3	2.4	7.3	11.8	2.0	5.6	8.6	1.8	4.9	7.6	1.8	4.6	7.2	ns
		V_{CCI} = 2.3 V to 2.7 V	15.2	2.5	9.0	16.8	2.2	6.9	11.0	1.9	5.1	8.0	1.7	4.5	7.0	1.6	4.1	6.5	ns
T_{amb} = -40 °C to +85 °C																			
t_{pd}	propagation delay	nA, nB to nY [2]																	
		V_{CCI} = 0.75 V to 0.85 V	23	3	18	148	3	16	145	2	14	164	2	14	191	2	15	222	ns
		V_{CCI} = 1.1 V to 1.3 V	16.9	3.1	10.8	19.9	2.8	8.7	15.9	2.4	6.9	10.9	2.2	6.3	9.6	2.1	6.0	9.1	ns
		V_{CCI} = 1.4 V to 1.6 V	16.0	2.8	9.9	18.2	2.5	7.8	13.2	2.1	6.0	9.1	2.0	5.4	8.2	1.9	5.0	7.7	ns
		V_{CCI} = 1.65 V to 1.95 V	15.6	2.7	9.5	17.3	2.4	7.3	11.8	2.0	5.6	8.6	1.8	4.9	7.6	1.8	4.6	7.2	ns
		V_{CCI} = 2.3 V to 2.7 V	15.2	2.5	9.0	16.8	2.2	6.9	11.0	1.9	5.1	8.0	1.7	4.5	7.0	1.6	4.1	6.5	ns
T_{amb} = -40 °C to +125 °C																			
t_{pd}	propagation delay	nA, nB to nY [2]																	
		V_{CCI} = 0.75 V to 0.85 V	23	3	18	148	3	16	145	2	14	164	2	14	191	2	15	222	ns
		V_{CCI} = 1.1 V to 1.3 V	16.9	3.1	10.8	20.2	2.8	8.7	16.7	2.4	6.9	14.2	2.2	6.3	12.2	2.1	6.0	11.2	ns
		V_{CCI} = 1.4 V to 1.6 V	16.0	2.8	9.9	19.1	2.5	7.8	15.6	2.1	6.0	11.1	2.0	5.4	10.0	1.9	5.0	9.4	ns
		V_{CCI} = 1.65 V to 1.95 V	15.6	2.7	9.5	18.2	2.4	7.3	14.7	2.0	5.6	10.5	1.8	4.9	9.6	1.8	4.6	8.9	ns
		V_{CCI} = 2.3 V to 2.7 V	15.2	2.5	9.0	17.2	2.2	6.9	13.7	1.9	5.1	9.8	1.7	4.5	8.8	1.6	4.1	8.1	ns
t_t	transition time	V_{CCI} = 0.75 V to 2.7 V [2]	-	1.0	-	-	1.0	-	-	1.0	-	-	1.0	-	-	1.0	-	-	ns

[1] Typical values are measured at nominal supply voltages and T_{amb} = +25 °C.

[2] t_{pd} is the same as t_{PLH} and t_{PHL}; t_t is the same as t_{THL} and t_{TLH}.

12. Waveform, graphs and test circuit



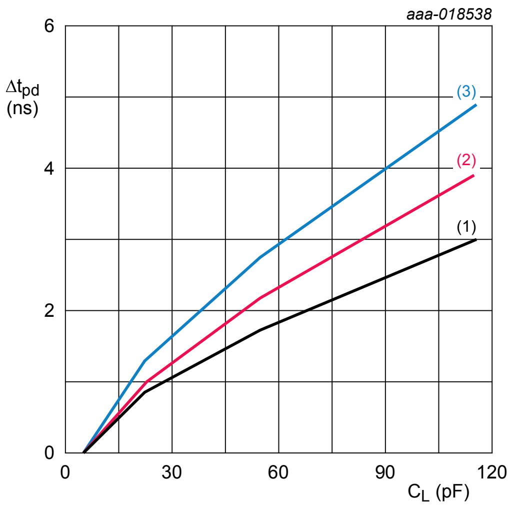
Measurement points are given in Table 12.

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

Fig. 4. Input nA, nB to output nY propagation delay times and output transition times

Table 12. Measurement points

Supply voltage		Output	Input	
V_{CCI}	V_{CCO}	V_M	V_M	V_I
0.75 V to 2.7 V	1.2 V to 5.5 V	$0.5V_{CCO}$	$0.5V_{CCI}$	V_{CCI}



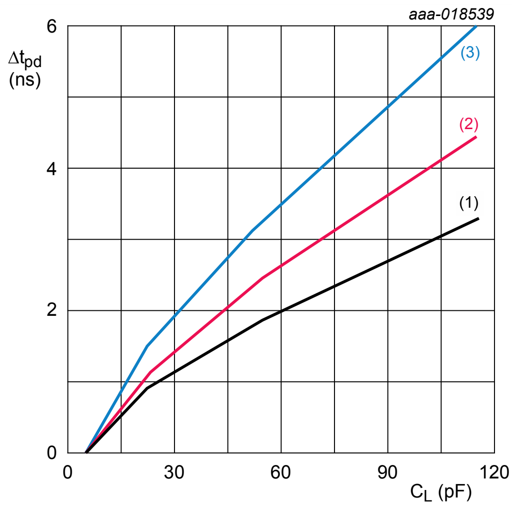
T_{amb} = -40 °C to +85 °C unless otherwise specified.

(1) Minimum: V_{CCO} = 5.5 V

(2) Typical: T_{amb} = 25 °C; V_{CCO} = 5 V

(3) Maximum: V_{CCO} = 4.5 V

Fig. 5. Additional propagation delay versus load capacitance



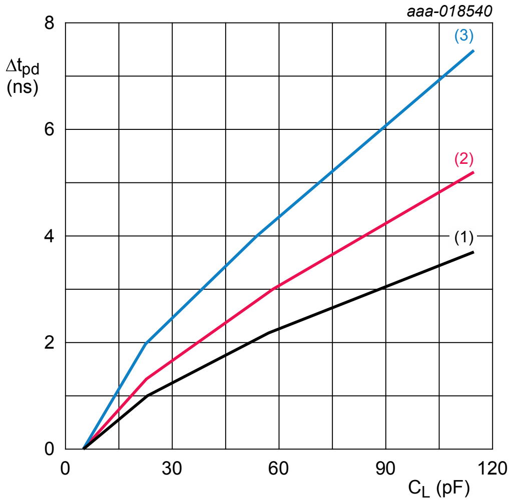
T_{amb} = -40 °C to +85 °C unless otherwise specified.

(1) Minimum: V_{CCO} = 3.6 V

(2) Typical: T_{amb} = 25 °C; V_{CCO} = 3.3 V

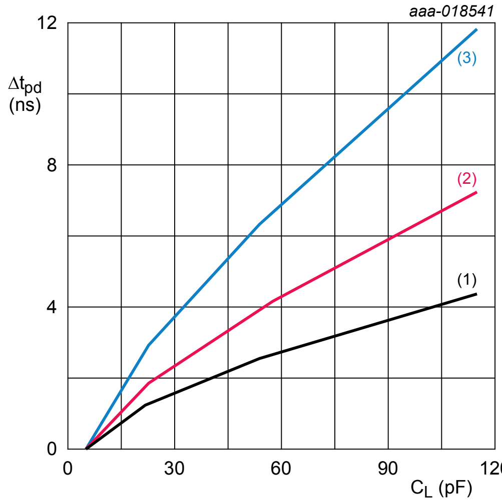
(3) Maximum: V_{CCO} = 3 V

Fig. 6. Additional propagation delay versus load capacitance



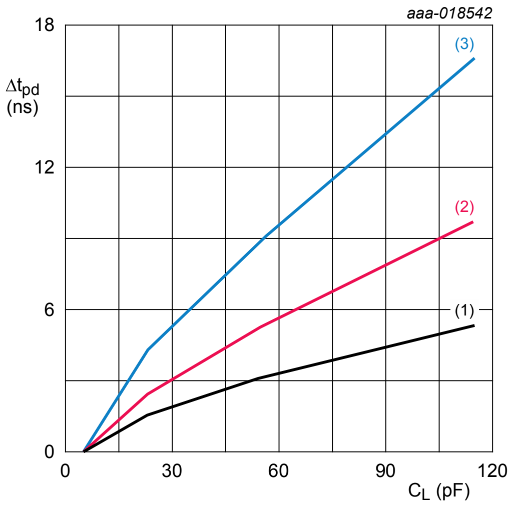
T_{amb} = -40 °C to +85 °C unless otherwise specified.
(1) Minimum: V_{CCO} = 2.7 V
(2) Typical: T_{amb} = 25 °C; V_{CCO} = 2.5 V
(3) Maximum: V_{CCO} = 2.3 V

Fig. 7. Additional propagation delay versus load capacitance



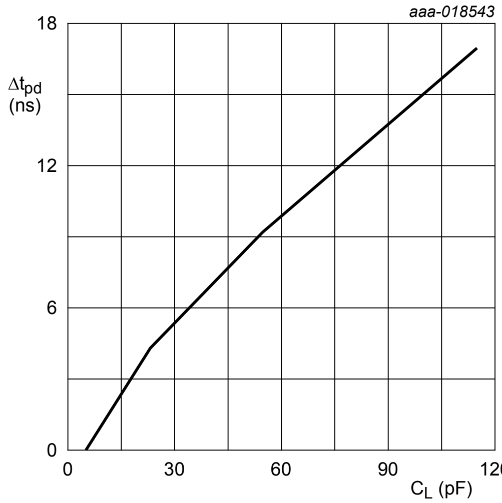
T_{amb} = -40 °C to +85 °C unless otherwise specified.
(1) Minimum: V_{CCO} = 1.95 V
(2) Typical: T_{amb} = 25 °C; V_{CCO} = 1.8 V
(3) Maximum: V_{CCO} = 1.65 V

Fig. 8. Additional propagation delay versus load capacitance



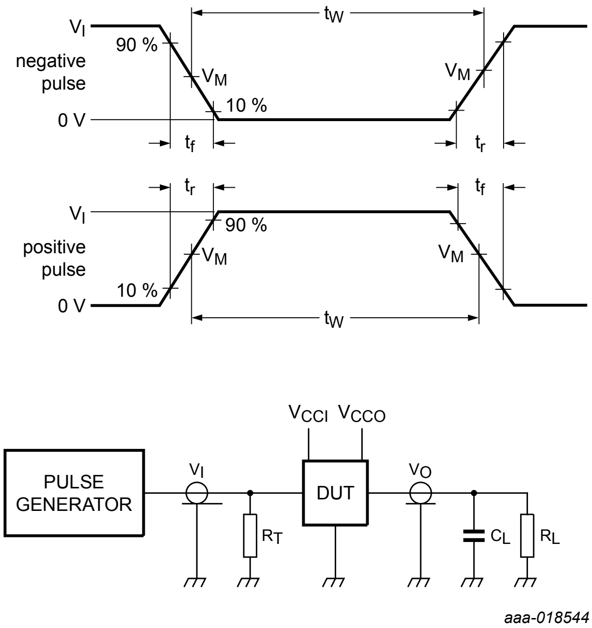
T_{amb} = -40 °C to +85 °C unless otherwise specified.
(1) Minimum: V_{CCO} = 1.6 V
(2) Typical: T_{amb} = 25 °C; V_{CCO} = 1.5 V
(3) Maximum: V_{CCO} = 1.4 V

Fig. 9. Additional propagation delay versus load capacitance



T_{amb} = 25 °C; V_{CCO} = 1.2 V.

Fig. 10. Additional propagation delay versus load capacitance



Test data is given in Table 13.

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.

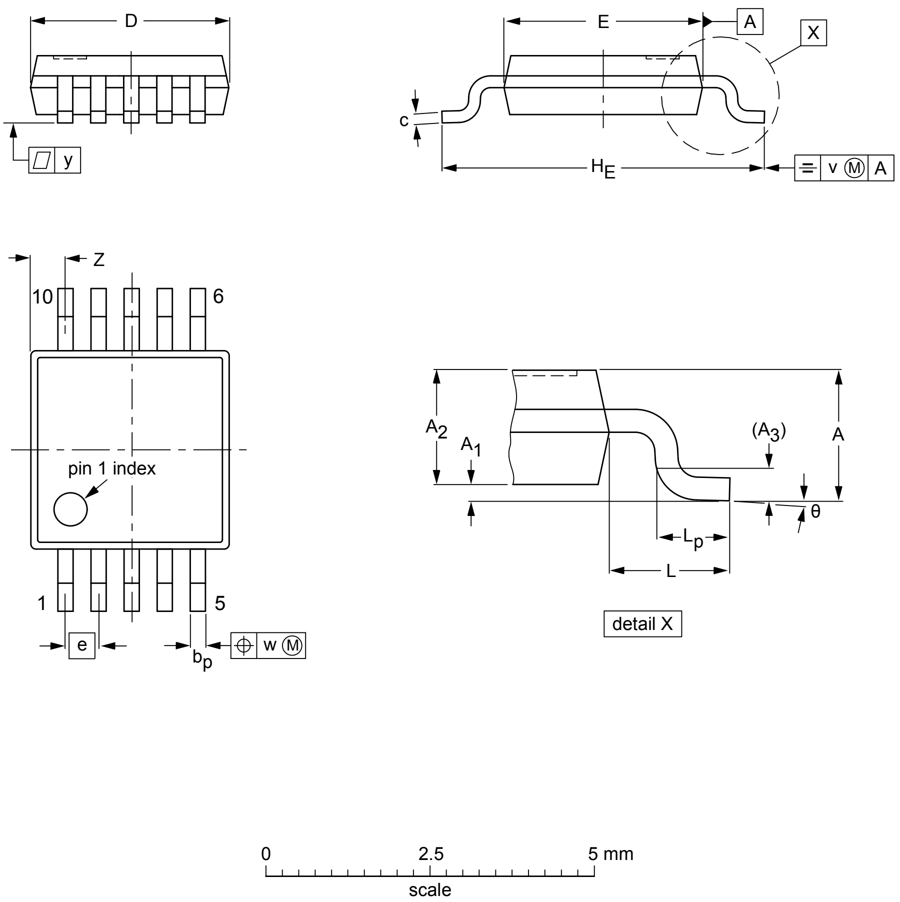
Fig. 11. Test circuit for measuring switching times

Table 13. Test data

Supply voltage		Load		Input	
V_{CCI}	V_{CCO}	C_L	R_L	t_r, t_f	V_I
0.75 V to 2.7 V	1.2 V to 5.5 V	5 pF	5 kΩ	≤3.0 ns	V_{CCI}

13. Package outline

TSSOP10: plastic thin shrink small outline package; 10 leads; body width 3 mm **SOT552-1**



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	v	w	y	Z(1)	θ
mm	1.1	0.15 0.05	0.95 0.80	0.25	0.30 0.15	0.23 0.15	3.1 2.9	3.1 2.9	0.5	5.0 4.8	0.95	0.7 0.4	0.1	0.1	0.1	0.67 0.34	6° 0°

Notes

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

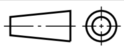
OUTLINE VERSION	REFERENCES				EUROPEAN PROJECTION	ISSUE DATE
	IEC	JEDEC	JEITA			
SOT552-1						~~99-07-29~~ 03-02-18

Fig. 12. Package outline SOT552-1 (TSSOP10)

14. Abbreviations

Table 14. Abbreviations

Acronym	Description
DUT	Device Under Test
ESD	ElectroStatic Discharge
HBM	Human Body Model
MIL	Military
MM	Machine Model
MIL	Military

15. Revision history

Table 15. Revision history

Document ID	Release date	Data sheet status	Change notice	Supersedes
74AXP2T08_Q100 v.2	20190327	Product data sheet	-	74AXP2T08_Q100 v.1
Modifications:	• The format of this data sheet has been redesigned to comply with the identity guidelines of Nexperia. • Legal texts have been adapted to the new company name where appropriate.			
74AXP2T08_Q100 v.1	20161101	Product data sheet	-	-

16. 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".
[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 https://www.nexperia.com.

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Contents

1. General description 1
2. Features and benefits 1
3. Ordering information 2
4. Marking 2
5. Functional diagram 2
6. Pinning information 3
6.1. Pinning 3
6.2. Pin description 3
7. Functional description 3
8. Limiting values 4
9. Recommended operating conditions 4
10. Static characteristics 5
11. Dynamic characteristics 7
12. Waveform, graphs and test circuit 9
13. Package outline 12
14. Abbreviations 13
15. Revision history 13
16. Legal information 14

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