74AUP1G08-Q100

Low-power 2-input AND gate

Rev. 3 — 21 April 2021

Product data sheet

1. General description

The 74AUP1G08-Q100 provides the single 2-input AND function.

Schmitt-trigger action at all inputs makes the circuit tolerant to slower input rise and fall times across the entire V_{CC} range from 0.8 V to 3.6 V.

This device ensures a very low static and dynamic power consumption across the entire V_{CC} range from 0.8 V to 3.6 V.

This device is fully specified for partial Power-down applications using I_{OFF} . The I_{OFF} circuitry disables the output, preventing the 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 from 0.8 V to 3.6 V
- · High noise immunity
- Complies with JEDEC standards:
 - JESD8-12 (0.8 V to 1.3 V)
 - JESD8-11 (0.9 V to 1.65 V)
 - JESD8-7 (1.2 V to 1.95 V)
 - JESD8-5 (1.8 V to 2.7 V)
 - JESD8-B (2.7 V to 3.6 V)
- ESD protection:
 - MIL-STD-883, method 3015 Class 3A. Exceeds 5000 V
 - HBM JESD22-A114F Class 3A. Exceeds 5000 V
 - MM JESD22-A115-A exceeds 200 V (C = 200 pF, R = 0 Ω)
- Low static power consumption; I_{CC} = 0.9 μA (maximum)
- Latch-up performance exceeds 100 mA per JESD 78 Class II
- Inputs accept voltages up to 3.6 V
- Low noise overshoot and undershoot < 10 % of V_{CC}
- I_{OFF} circuitry provides partial Power-down mode operation

3. Ordering information

Table 1. Ordering information

	able 1. Ordering information									
	Type number	Package								
		Temperature range	Name	Description	Version					
	74AUP1G08GW-Q100	-40 °C to +125 °C	TSSOP5	plastic thin shrink small outline package; 5 leads; body width 1.25 mm	SOT353-1					
	74AUP1G08GM-Q100	-40 °C to +125 °C	XSON6	plastic extremely thin small outline package; no leads; 6 terminals; body 1 × 1.45 × 0.5 mm	SOT886					



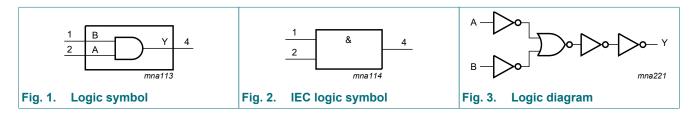
4. Marking

Table 2. Marking

Type number	Marking code[1]
74AUP1G08GW-Q100	pE
74AUP1G08GM-Q100	pE

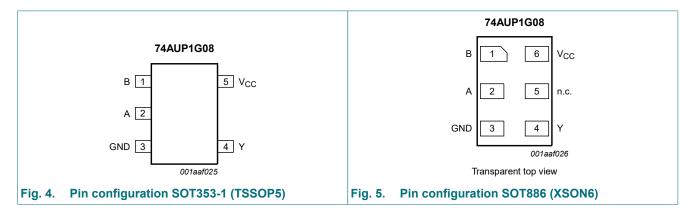
[1] The pin 1 indicator is located on the lower left corner of the device, below the marking code.

5. Functional diagram



6. Pinning information

6.1. Pinning



6.2. Pin description

Table 3. Pin description

Symbol	Pin	Description	
	TSSOP5	XSON6	
В	1	1	data input
A	2	2	data input
GND	3	3	ground (0 V)
Υ	4	4	data output
n.c.	-	5	not connected
V _{CC}	5	6	supply voltage

7. Functional description

Table 4. Function table

 $H = HIGH \ voltage \ level; \ L = LOW \ voltage \ level.$

Input	Output	
A	В	Υ
L	L	L
L	Н	L
Н	L	L
Н	Н	Н

8. Limiting values

Table 5. Limiting values

In accordance with the Absolute Maximum Rating System (IEC 60134). Voltages are referenced to GND (ground = 0 V).

Symbol	Parameter	Conditions	Min	Max	Unit
V _{CC}	supply voltage		-0.5	+4.6	V
I _{IK}	input clamping current	V _I < 0 V	-50	-	mA
VI	input voltage	[1]	-0.5	+4.6	V
I _{OK}	output clamping current	V _O < 0 V	-50	-	mA
Vo	output voltage	Active mode and Power-down mode [1]	-0.5	+4.6	V
Io	output current	V _O = 0 V to V _{CC}	-	±20	mA
I _{CC}	supply current		-	+50	mA
I _{GND}	ground current		-50	-	mA
T _{stg}	storage temperature		-65	+150	°C
P _{tot}	total power dissipation	$T_{amb} = -40 ^{\circ}\text{C} \text{ to } +125 ^{\circ}\text{C}$ [2]	-	250	mW

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

9. Recommended operating conditions

Table 6. Recommended operating conditions

Symbol	Parameter	Conditions	Min	Max	Unit
V _{CC}	supply voltage		0.8	3.6	V
VI	input voltage		0	3.6	V
Vo	output voltage	Active mode	0	V _{CC}	V
		Power-down mode; V _{CC} = 0 V	0	3.6	V
T _{amb}	ambient temperature		-40	+125	°C
Δt/ΔV	input transition rise and fall rate	V _{CC} = 0.8 V to 3.6 V	0	200	ns/V

^[2] For SOT353-1 (TSSOP5) package: P_{tot} derates linearly with 3.3 mW/K above 74 °C. For SOT886 (XSON6) package: P_{tot} derates linearly with 3.3 mW/K above 74 °C.

10. Static characteristics

Table 7. Static characteristics

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

Symbol	Parameter	Conditions	Min	Тур	Max	Unit
T _{amb} = 2	5 °C					
V _{IH}	HIGH-level input voltage	V _{CC} = 0.8 V	0.70 × V _{CC}	-	-	V
		V _{CC} = 0.9 V to 1.95 V	0.65 × V _{CC}	-	-	V
		V _{CC} = 2.3 V to 2.7 V	1.6	-	-	V
		V _{CC} = 3.0 V to 3.6 V	2.0	-	-	V
V _{IL}	LOW-level input voltage	V _{CC} = 0.8 V	-	-	0.30 × V _{CC}	V
		V _{CC} = 0.9 V to 1.95 V	-	-	0.35 × V _{CC}	V
		V _{CC} = 2.3 V to 2.7 V	-	-	0.7	V
		V _{CC} = 3.0 V to 3.6 V	-	-	0.9	V
V _{OH}	HIGH-level output	$V_I = V_{IH}$ or V_{IL}				
	voltage	I_{O} = -20 μ A; V_{CC} = 0.8 V to 3.6 V	V _{CC} - 0.1	-	-	V
		I _O = -1.1 mA; V _{CC} = 1.1 V	0.75 × V _{CC}	-	-	V
		I _O = -1.7 mA; V _{CC} = 1.4 V	1.11	-	-	V
		I _O = -1.9 mA; V _{CC} = 1.65 V	1.32	-	-	V
		I _O = -2.3 mA; V _{CC} = 2.3 V	2.05	-	-	V
		I _O = -3.1 mA; V _{CC} = 2.3 V	1.9	-	-	V
		I _O = -2.7 mA; V _{CC} = 3.0 V	2.72	-	-	V
		I _O = -4.0 mA; V _{CC} = 3.0 V	2.6	-	-	V
V _{OL}	LOW-level output	V _I = V _{IH} or V _{IL}				
	voltage	I _O = 20 μA; V _{CC} = 0.8 V to 3.6 V	-	-	0.1	V
		I _O = 1.1 mA; V _{CC} = 1.1 V	-	-	0.3 × V _{CC}	V
		I _O = 1.7 mA; V _{CC} = 1.4 V	-	-	0.31	V
		I _O = 1.9 mA; V _{CC} = 1.65 V	-	-	0.31	V
		I _O = 2.3 mA; V _{CC} = 2.3 V	-	-	0.31	V
		I _O = 3.1 mA; V _{CC} = 2.3 V	-	-	0.44	V
		I _O = 2.7 mA; V _{CC} = 3.0 V	-	-	0.31	V
		I _O = 4.0 mA; V _{CC} = 3.0 V	-	-	0.44	V
I	input leakage current	V _I = GND to 3.6 V; V _{CC} = 0 V to 3.6 V	-	-	±0.1	μΑ
I _{OFF}	power-off leakage current	V_1 or $V_0 = 0$ V to 3.6 V; $V_{CC} = 0$ V	-	-	±0.2	μΑ
Δl _{OFF}	additional power-off leakage current	V _I or V _O = 0 V to 3.6 V; V _{CC} = 0 V to 0.2 V	-	-	±0.2	μΑ
I _{CC}	supply current	$V_I = GND \text{ or } V_{CC}; I_O = 0 \text{ A};$ $V_{CC} = 0.8 \text{ V to } 3.6 \text{ V}$	-	-	0.5	μΑ
ΔI _{CC}	additional supply current	$V_I = V_{CC} - 0.6 \text{ V}; I_O = 0 \text{ A}; V_{CC} = 3.3 \text{ V}$ [1]	-	-	40	μΑ
Cı	input capacitance	V_{CC} = 0 V to 3.6 V; V_{I} = GND or V_{CC}	-	0.8	-	pF
Co	output capacitance	V _O = GND; V _{CC} = 0 V	-	1.7	-	pF

Symbol	Parameter	Conditions	Min	Тур	Max	Unit
T _{amb} = -	40 °C to +85 °C					
V _{IH}	HIGH-level input voltage	V _{CC} = 0.8 V	0.70 × V _{CC}	-	-	V
		V _{CC} = 0.9 V to 1.95 V	0.65 × V _{CC}	-	-	V
		V _{CC} = 2.3 V to 2.7 V	1.6	-	-	V
		V _{CC} = 3.0 V to 3.6 V	2.0	-	-	V
V _{IL}	LOW-level input voltage	V _{CC} = 0.8 V	-	-	0.30 × V _{CC}	V
		V _{CC} = 0.9 V to 1.95 V	-	-	0.35 × V _{CC}	V
		V _{CC} = 2.3 V to 2.7 V	-	-	0.7	V
		V _{CC} = 3.0 V to 3.6 V	-	-	0.9	V
V _{OH}	HIGH-level output	$V_I = V_{IH}$ or V_{IL}				
	voltage	$I_O = -20 \mu A$; $V_{CC} = 0.8 \text{ V to } 3.6 \text{ V}$	V _{CC} - 0.1	-	-	V
		I _O = -1.1 mA; V _{CC} = 1.1 V	0.7 × V _{CC}	-	-	V
		I _O = -1.7 mA; V _{CC} = 1.4 V	1.03	-	-	V
		I _O = -1.9 mA; V _{CC} = 1.65 V	1.30	-	-	V
		I _O = -2.3 mA; V _{CC} = 2.3 V	1.97	-	-	V
		I _O = -3.1 mA; V _{CC} = 2.3 V	1.85	-	-	V
		I _O = -2.7 mA; V _{CC} = 3.0 V	2.67	-	-	V
		I _O = -4.0 mA; V _{CC} = 3.0 V	2.55	-	-	V
V _{OL}	LOW-level output	$V_I = V_{IH}$ or V_{IL}				
	voltage	I _O = 20 μA; V _{CC} = 0.8 V to 3.6 V	-	-	0.1	V
		I _O = 1.1 mA; V _{CC} = 1.1 V	-	-	0.3 × V _{CC}	V
		I _O = 1.7 mA; V _{CC} = 1.4 V	-	-	0.37	V
		I _O = 1.9 mA; V _{CC} = 1.65 V	-	-	0.35	V
		I _O = 2.3 mA; V _{CC} = 2.3 V	-	-	0.33	V
		I _O = 3.1 mA; V _{CC} = 2.3 V	-	-	0.45	V
		I _O = 2.7 mA; V _{CC} = 3.0 V	-	-	0.33	V
		I _O = 4.0 mA; V _{CC} = 3.0 V	-	-	0.45	V
l _l	input leakage current	V _I = GND to 3.6 V; V _{CC} = 0 V to 3.6 V	-	-	±0.5	μΑ
I _{OFF}	power-off leakage current	V_1 or $V_0 = 0$ V to 3.6 V; $V_{CC} = 0$ V	-	-	±0.5	μΑ
Δl _{OFF}	additional power-off leakage current	V _I or V _O = 0 V to 3.6 V; V _{CC} = 0 V to 0.2 V	-	-	±0.6	μΑ
I _{CC}	supply current	$V_I = GND \text{ or } V_{CC}; I_O = 0 \text{ A};$ $V_{CC} = 0.8 \text{ V to } 3.6 \text{ V}$	-	-	0.9	μΑ
ΔI_{CC}	additional supply current	$V_1 = V_{CC} - 0.6 \text{ V}; I_O = 0 \text{ A}; V_{CC} = 3.3 \text{ V} $ [1]	-	-	50	μΑ
T _{amb} = -	40 °C to +125 °C					
V _{IH}	HIGH-level input voltage	V _{CC} = 0.8 V	0.75 × V _{CC}	-	-	V
		V _{CC} = 0.9 V to 1.95 V	0.70 × V _{CC}	-	-	V
		V _{CC} = 2.3 V to 2.7 V	1.6	-	-	V
		V _{CC} = 3.0 V to 3.6 V	2.0	-	-	V
V _{IL}	LOW-level input voltage	V _{CC} = 0.8 V	-	-	0.25 × V _{CC}	V
		V _{CC} = 0.9 V to 1.95 V	-	-	0.30 × V _{CC}	V
		V _{CC} = 2.3 V to 2.7 V	-	-	0.7	V
		V _{CC} = 3.0 V to 3.6 V	-	-	0.9	V

Symbol	Parameter	Conditions	Min	Тур	Max	Unit
V _{OH}	HIGH-level output	V _I = V _{IH} or V _{IL}				
	voltage	I_{O} = -20 μ A; V_{CC} = 0.8 V to 3.6 V	V _{CC} - 0.11	-	-	V
		I _O = -1.1 mA; V _{CC} = 1.1 V	0.6 × V _{CC}	-	-	V
		I _O = -1.7 mA; V _{CC} = 1.4 V	0.93	-	-	V
		I _O = -1.9 mA; V _{CC} = 1.65 V	1.17	-	-	V
		I_{O} = -2.3 mA; V_{CC} = 2.3 V	1.77	-	-	V
		I _O = -3.1 mA; V _{CC} = 2.3 V	1.67	-	-	V
		I _O = -2.7 mA; V _{CC} = 3.0 V	2.40	-	-	V
		I _O = -4.0 mA; V _{CC} = 3.0 V	2.30	-	-	V
V _{OL}	LOW-level output	V _I = V _{IH} or V _{IL}				
	voltage	I _O = 20 μA; V _{CC} = 0.8 V to 3.6 V	-	-	0.11	V
		I _O = 1.1 mA; V _{CC} = 1.1 V	-	-	0.33 × V _{CC}	V
		I _O = 1.7 mA; V _{CC} = 1.4 V	-	-	0.41	V
		I _O = 1.9 mA; V _{CC} = 1.65 V	-	-	0.39	V
		I _O = 2.3 mA; V _{CC} = 2.3 V	-	-	0.36	V
		I _O = 3.1 mA; V _{CC} = 2.3 V	-	-	0.50	V
		I _O = 2.7 mA; V _{CC} = 3.0 V	-	-	0.36	V
		I _O = 4.0 mA; V _{CC} = 3.0 V	-	-	0.50	V
lį	input leakage current	V _I = GND to 3.6 V; V _{CC} = 0 V to 3.6 V	-	-	±0.75	μΑ
I _{OFF}	power-off leakage current	V_{I} or $V_{O} = 0$ V to 3.6 V; $V_{CC} = 0$ V	-	-	±0.75	μΑ
Δl _{OFF}	additional power-off leakage current	V _I or V _O = 0 V to 3.6 V; V _{CC} = 0 V to 0.2 V	-	-	±0.75	μΑ
I _{CC}	supply current	V_{I} = GND or V_{CC} ; I_{O} = 0 A; V_{CC} = 0.8 V to 3.6 V	-	-	1.4	μΑ
Δl _{CC}	additional supply current	$V_I = V_{CC} - 0.6 \text{ V}; I_O = 0 \text{ A}; V_{CC} = 3.3 \text{ V} $ [1]	-	-	75	μΑ

^[1] One input at V_{CC} - 0.6 V, other input at V_{CC} or GND.

11. Dynamic characteristics

Table 8. Dynamic characteristics

Voltages are referenced to GND (ground = 0 V); for test circuit see Fig. 7

Symbol	Parameter	Conditions	Min	Typ [1]	Max	Unit
T _{amb} = 2	5 °C; C _L = 5 pF					
t _{pd}	propagation delay	A, B to Y; see <u>Fig. 6</u> [2]				
		V _{CC} = 0.8 V	-	17.0	-	ns
		V _{CC} = 1.1 V to 1.3 V	2.6	5.1	10.8	ns
		V _{CC} = 1.4 V to 1.6 V	1.6	3.7	6.5	ns
		V _{CC} = 1.65 V to 1.95 V	1.3	3.0	5.2	ns
		V _{CC} = 2.3 V to 2.7 V	1.1	2.4	4.0	ns
		V _{CC} = 3.0 V to 3.6 V	1.0	2.2	3.5	ns

Symbol	Parameter	Conditions		Min	Typ [1]	Max	Unit
T _{amb} = 2	25 °C; C _L = 10 pF	'					
t _{pd}	propagation delay	A, B to Y; see Fig. 6	[2]				
		V _{CC} = 0.8 V		-	20.6	-	ns
		V _{CC} = 1.1 V to 1.3 V		2.4	6.0	12.5	ns
		V _{CC} = 1.4 V to 1.6 V		2.0	4.3	7.6	ns
		V _{CC} = 1.65 V to 1.95 V		1.7	3.6	6.1	ns
		V _{CC} = 2.3 V to 2.7 V		1.4	2.9	4.8	ns
		V _{CC} = 3.0 V to 3.6 V		1.3	2.7	4.2	ns
T _{amb} = 2	25 °C; C _L = 15 pF	·					
t _{pd}	propagation delay	A, B to Y; see Fig. 6	[2]				
		V _{CC} = 0.8 V		-	24.1	-	ns
		V _{CC} = 1.1 V to 1.3 V		3.4	6.8	14.2	ns
		V _{CC} = 1.4 V to 1.6 V		2.3	4.9	8.6	ns
		V _{CC} = 1.65 V to 1.95 V		1.9	4.0	6.9	ns
		V _{CC} = 2.3 V to 2.7 V		1.7	3.4	5.5	ns
		V _{CC} = 3.0 V to 3.6 V		1.5	3.1	4.8	ns
T _{amb} = 2	25 °C; C _L = 30 pF	,	<u>'</u>				
t _{pd}	propagation delay	A, B to Y; see Fig. 6	[2]				
		V _{CC} = 0.8 V		-	34.4	-	ns
		V _{CC} = 1.1 V to 1.3 V		4.6	9.1	19.4	ns
		V _{CC} = 1.4 V to 1.6 V		3.4	6.4	11.5	ns
		V _{CC} = 1.65 V to 1.95 V		2.6	5.3	9.1	ns
		V _{CC} = 2.3 V to 2.7 V		2.3	4.5	7.2	ns
		V _{CC} = 3.0 V to 3.6 V		2.2	4.2	6.2	ns
T _{amb} = 2	25 °C	·					
C _{PD}	power dissipation	$f = 1 \text{ MHz}; V_I = \text{GND to } V_{CC}$	[3]				
	capacitance	V _{CC} = 0.8 V		-	2.5	-	pF
		V _{CC} = 1.1 V to 1.3 V		-	2.7	-	pF
		V _{CC} = 1.4 V to 1.6 V		-	2.8	-	pF
		V _{CC} = 1.65 V to 1.95 V		-	2.9	-	pF
		V _{CC} = 2.3 V to 2.7 V		-	3.5	-	pF
		V _{CC} = 3.0 V to 3.6 V		-	4.0	-	pF

^[1] All typical values are measured at nominal V_{CC} .

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

 $\Sigma(C_L \times V_{CC}^2 \times f_0)$ = sum of the outputs.

t_{pd} is the same as t_{PLH} and t_{PHL}.
 C_{PD} is used to determine the dynamic power dissipation (P_D in μW).

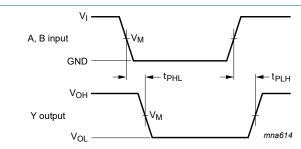
Table 9. Dynamic characteristics

Voltages are referenced to GND (ground = 0 V); for test circuit see Fig. 7

Symbol	l Parameter	Conditions		-40 °C to +85 °C		-40 °C to +125 °C		Unit
			Min	Max	Min	Max		
C _L = 5 p	F		'					
t _{pd}	propagation delay	A, B to Y; see Fig. 6	[1]					
		V _{CC} = 1.1 V to 1.3 V		2.1	11.7	2.1	12.9	ns
		V _{CC} = 1.4 V to 1.6 V		1.5	7.5	1.5	8.3	ns
		V _{CC} = 1.65 V to 1.95 V		1.3	6.1	1.3	6.7	ns
		V _{CC} = 2.3 V to 2.7 V		1.0	4.8	1.0	5.3	ns
		V _{CC} = 3.0 V to 3.6 V		0.9	4.3	0.9	4.8	ns
C _L = 10	pF		·			-	'	
t _{pd}	propagation delay	A, B to Y; see Fig. 6	[1]					
		V _{CC} = 1.1 V to 1.3 V		2.2	13.6	2.2	15.0	ns
		V _{CC} = 1.4 V to 1.6 V		1.8	8.9	1.8	9.8	ns
		V _{CC} = 1.65 V to 1.95 V		1.6	7.2	1.6	7.9	ns
		V _{CC} = 2.3 V to 2.7 V		1.3	5.7	1.3	6.3	ns
		V _{CC} = 3.0 V to 3.6 V		1.2	4.7	1.2	5.2	ns
C _L = 15	pF		·					
t _{pd}	propagation delay	A, B to Y; see Fig. 6	[1]					
		V _{CC} = 1.1 V to 1.3 V		3.1	15.7	3.1	17.3	ns
		V _{CC} = 1.4 V to 1.6 V		2.1	10.1	2.1	11.2	ns
		V _{CC} = 1.65 V to 1.95 V		1.8	8.2	1.8	9.0	ns
		V _{CC} = 2.3 V to 2.7 V		1.6	6.5	1.6	7.2	ns
		V _{CC} = 3.0 V to 3.6 V		1.5	5.9	1.5	6.5	ns
C _L = 30	pF		·					
t _{pd}	propagation delay	A, B to Y; see Fig. 6	[1]					
		V _{CC} = 1.1 V to 1.3 V		4.1	21.8	4.1	24.0	ns
		V _{CC} = 1.4 V to 1.6 V		2.9	13.6	2.9	15.0	ns
		V _{CC} = 1.65 V to 1.95 V		2.4	10.9	2.4	12.1	ns
		V _{CC} = 2.3 V to 2.7 V		2.2	8.6	2.2	9.5	ns
		V _{CC} = 3.0 V to 3.6 V		2.1	7.5	2.1	8.3	ns

^[1] t_{pd} is the same as t_{PLH} and t_{PHL} .

11.1. Waveforms and test circuit



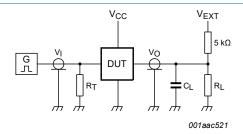
Measurement points are given in Table 10.

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

Fig. 6. The data input (A or B) to output (Y) propagation delays

Table 10. Measurement points

Supply voltage	Output	Input					
V _{CC}	V _M	V _M	V _I	$t_r = t_f$			
0.8 V to 3.6 V	0.5 x V _{CC}	0.5 x V _{CC}	V _{CC}	≤ 3.0 ns			



Test data is given in Table 11.

Definitions for test circuit:

R_L = Load resistance.

 C_L = Load capacitance including jig and probe capacitance.

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

 V_{EXT} = External voltage for measuring switching times.

Fig. 7. Test circuit for measuring switching times

Table 11. Test data

Supply voltage	Load		V _{EXT}			
V _{CC}	CL	R _L [1]	t _{PLH} , t _{PHL}	t _{PZH} , t _{PHZ}	t _{PZL} , t _{PLZ}	
0.8 V to 3.6 V	5 pF, 10 pF, 15 pF and 30 pF	5 kΩ or 1 MΩ	open	GND	2 x V _{CC}	

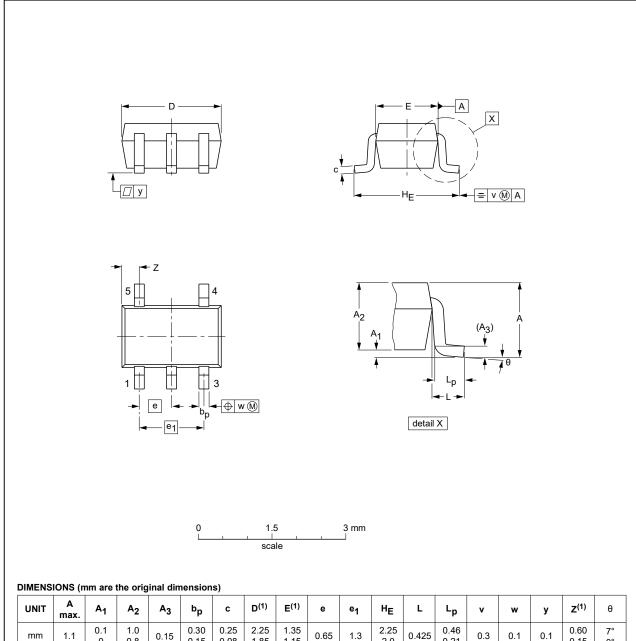
[1] For measuring enable and disable times R_L = 5 $k\Omega.$

For measuring propagation delays, setup and hold times and pulse width R_L = 1 $M\Omega$.

12. Package outline

TSSOP5: plastic thin shrink small outline package; 5 leads; body width 1.25 mm

SOT353-1



UN	VIT	A max.	A ₁	A ₂	А3	bp	С	D ⁽¹⁾	E ⁽¹⁾	е	e ₁	HE	L	Lp	v	w	у	Z ⁽¹⁾	θ
m	m	1.1	0.1 0	1.0 0.8	0.15	0.30 0.15	0.25 0.08	2.25 1.85	1.35 1.15	0.65	1.3	2.25 2.0	0.425	0.46 0.21	0.3	0.1	0.1	0.60 0.15	7° 0°

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

OUTLINE		REFER	EUROPEAN	ISSUE DATE			
VERSION	IEC	JEDEC	JEITA		PROJECTION	ISSUE DATE	
SOT353-1		MO-203	SC-88A			-00-09-01 03-02-19	

Fig. 8. Package outline SOT353-1 (TSSOP5)

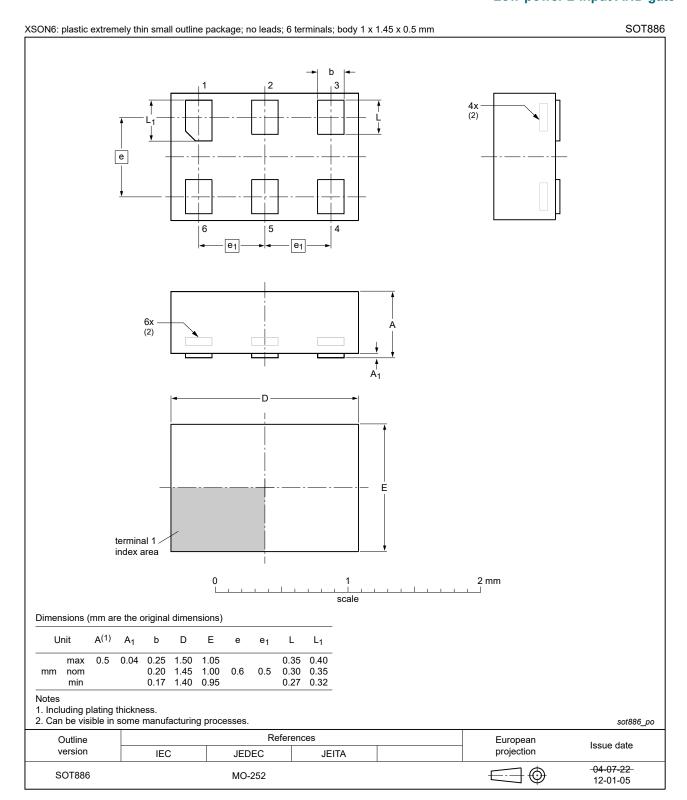


Fig. 9. Package outline SOT886 (XSON6)

13. Abbreviations

Table 12. Abbreviations

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

14. Revision history

Table 13. Revision history

Document ID	Release date	Data sheet status	Change notice	Supersedes				
74AUP1G08_Q100 v.3	20210421	Product data sheet	-	74AUP1G08_Q100 v.2				
Modifications:	• <u>Table 5</u> : Derati	<u>Table 5</u> : Derating values for P _{tot} total power dissipation updated.						
74AUP1G08_Q100 v.2	20190128	Product data sheet	-	74AUP1G08_Q100 v.1				
Modifications:	Nexperia. • Legal texts have	 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. Type number 74AUP1G08GM-Q100 (SOT886) added. 						
74AUP1G08_Q100 v.1	20130131	Product data sheet	-	-				

15. 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".
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