74AVC1T8832

Single dual-supply translating 2-input OR with strobe

Rev. 2 — 25 June 2024 Product data sheet

1. General description

The 74AVC1T8832 is a single dual-supply translating 2-input OR with strobe inputs. It features two data input pins (A, B), two strobe input pins (STRA, STRB), one data output pin (Y) and dual-supply pins ($V_{CC(A)}$ and $V_{CC(B)}$). Both $V_{CC(A)}$ and $V_{CC(B)}$ can be supplied at any voltage between 0.8 V and 3.6 V making the device suitable for translating between any of the low voltage nodes (0.8 V, 1.2 V, 1.5 V, 1.8 V, 2.5 V and 3.3 V). Pins A, B, STRA and STRB are referenced to $V_{CC(A)}$ and pin Y is referenced to $V_{CC(B)}$.

The logic equation provided at the Y output is:

$$Y = \overline{STRA} \bullet A + \overline{STRB} \bullet B$$

The device is fully specified for partial power-down applications using I_{OFF}. The I_{OFF} circuitry disables the output, preventing any damaging backflow current through the device when it is powered down. In Suspend mode when either $V_{CC(A)}$ or $V_{CC(B)}$ are at GND level, the Y output is in the high-impedance OFF-state.

2. Features and benefits

- Wide supply voltage range:
  - $V_{CC(A)}$: 0.8 V to 3.6 V
  - $V_{CC(B)}$: 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)
- Maximum data rates:
  - 500 Mbit/s (1.8 V to 3.3 V translation)
  - 320 Mbit/s (<1.8 V to 3.3 V translation)
  - 320 Mbit/s (translate to 2.5 V or 1.8 V)
  - 280 Mbit/s (translate to 1.5 V)
  - 240 Mbit/s (translate to 1.2 V)
- Suspend mode
- 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
- ESD protection:
  - HBM: ANSI/ESDA/JEDEC JS-001 class 3B exceeds 8000 V
  - CDM: ANSI/ESDA/JEDEC JS-002 class C3 exceeds 1000 V
- Specified from -40 °C to +85 °C and -40 °C to +125 °C

3. Ordering information

Table 1. Ordering information

Type number	Package			
	Temperature range	Name	Description	Version
74AVC1T8832GS	-40 °C to +125 °C	XSON8	extremely thin small outline package; no leads; 8 terminals; body 1.35 × 1.0 × 0.35 mm	SOT1203

4. Marking

Table 2. Marking

Type number	Marking code[1]
74AVC1T8832GS	Bf

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

5. Functional diagram

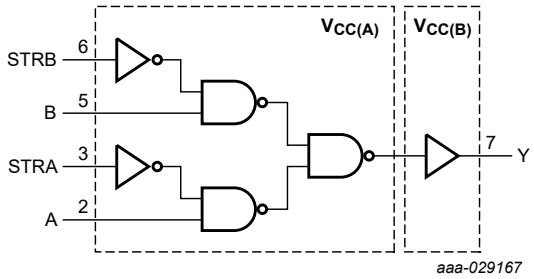
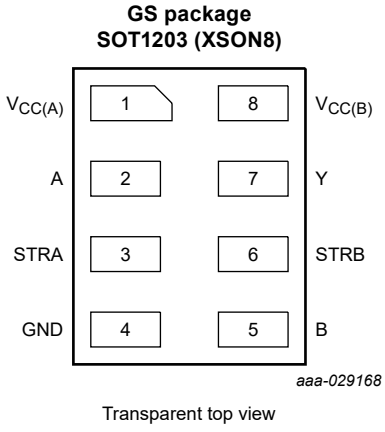


Fig. 1. Logic symbol

6. Pinning information

6.1. Pinning



Transparent top view

6.2. Pin description

Table 3. Pin description

Symbol	Pin	Description
$V_{CC(A)}$	1	supply voltage A (referenced to pins A, B, STRA and STRB)
A	2	data input
STRA	3	strobe A input
GND	4	ground (0 V)
B	5	data input
STRB	6	strobe B input
Y	7	data output
$V_{CC(B)}$	8	supply voltage B (referenced to pin Y)

7. Functional description

Table 4. Function table

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

Supply voltage	Inputs[1]				Output[2]
$V_{CC(A)}$, $V_{CC(B)}$	STRB	B	STRA	A	Y
0.8 V to 3.6 V	L	L	L	L	L
0.8 V to 3.6 V	L	L	L	H	H
0.8 V to 3.6 V	L	L	H	L	L
0.8 V to 3.6 V	L	L	H	H	L
0.8 V to 3.6 V	L	H	L	L	H
0.8 V to 3.6 V	L	H	L	H	H
0.8 V to 3.6 V	L	H	H	L	H
0.8 V to 3.6 V	L	H	H	H	H
0.8 V to 3.6 V	H	L	L	L	L
0.8 V to 3.6 V	H	L	L	H	H
0.8 V to 3.6 V	H	L	H	L	L
0.8 V to 3.6 V	H	L	H	H	L
0.8 V to 3.6 V	H	H	L	L	L
0.8 V to 3.6 V	H	H	L	H	H
0.8 V to 3.6 V	H	H	H	L	L
0.8 V to 3.6 V	H	H	H	H	L
GND [3]	X	X	X	X	Z

[1] The A, B, STRA and STRB inputs are referenced to $V_{CC(A)}$.
[2] The Y output is referenced to $V_{CC(B)}$.
[3] If $V_{CC(A)}$ is at GND level, the device goes into Suspend mode.

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
$V_{CC(A)}$	supply voltage A		-0.5	+4.6	V
$V_{CC(B)}$	supply voltage B		-0.5	+4.6	V
I_{IK}	input clamping current	V_I < 0 V	-50	-	mA
V_I	input voltage	[1]	-0.5	+4.6	V
I_{OK}	output clamping current	V_O < 0 V	-50	-	mA
V_O	output voltage	Active mode [1] [2]	-0.5	$V_{CC(B)}$ + 0.5	V
		Suspend mode [1]	-0.5	+4.6	V
I_O	output current	V_O = 0 V to $V_{CC(B)}$	-	±50	mA
I_{CC}	supply current	$I_{CC(A)}$ or $I_{CC(B)}$	-	100	mA
I_{GND}	ground current		-100	-	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 voltage rating and output voltage ratings may be exceeded if the input and output current ratings are observed.
[2] $V_{CC(B)}$ + 0.5 V should not exceed 4.6 V.
[3] For SOT1203 (XSON8) package: P_{tot} derates linearly with 3.6 mW/K above 81 °C.

9. Recommended operating conditions

Table 6. Recommended operating conditions

Symbol	Parameter	Conditions	Min	Max	Unit
$V_{CC(A)}$	supply voltage A		0.8	3.6	V
$V_{CC(B)}$	supply voltage B		0.8	3.6	V
V_I	input voltage		0	3.6	V
V_O	output voltage	Active mode	0	$V_{CC(B)}$	V
		Suspend mode	0	3.6	V
T_{amb}	ambient temperature		-40	+125	°C
Δt/ΔV	input transition rise and fall rate	$V_{CC(A)}$ = 0.8 V to 3.6 V	-	5	ns/V

10. Static characteristics

Table 7. Typical static characteristics at T_{amb} = 25 °C

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

Symbol	Parameter	Conditions	Min	Typ	Max	Unit
V_{OH}	HIGH-level output voltage	V_I = V_{IH} or V_{IL}				
		I_O = -1.5 mA; $V_{CC(A)}$ = $V_{CC(B)}$ = 0.8 V	-	0.69	-	V
V_{OL}	LOW-level output voltage	V_I = V_{IH} or V_{IL}				
		I_O = 1.5 mA; $V_{CC(A)}$ = $V_{CC(B)}$ = 0.8 V	-	0.07	-	V
I_I	input leakage current	inputs; V_I = 0 V or 3.6 V; $V_{CC(A)}$ = 0 V to 3.6 V	-	±0.025	±0.25	µA
I_{OZ}	OFF-state output current	Y output; V_O = 0 V or $V_{CC(B)}$; $V_{CC(A)}$ = 0 V; $V_{CC(B)}$ = 0.8 V to 3.6 V	-	±0.5	±2.5	µA
I_{OFF}	power-off leakage current	output; V_I or V_O = 0 V to 3.6 V; $V_{CC(B)}$ = 0 V; $V_{CC(A)}$ = 0.8 V to 3.6 V	-	±0.1	±1	µA
C_I	input capacitance	V_I = 0 V or 3.3 V; $V_{CC(A)}$ = $V_{CC(B)}$ = 3.3 V	-	1.0	-	pF
C_O	output capacitance	Y output; Suspend mode; V_O = $V_{CC(B)}$ or GND; $V_{CC(A)}$ = $V_{CC(B)}$ = 3.3 V	-	4.0	-	pF

Table 8. Static characteristics

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

Symbol	Parameter	Conditions	-40 °C to +85 °C		-40 °C to +125 °C		Unit
			Min	Max	Min	Max	
V_{IH}	HIGH-level input voltage	inputs					
		$V_{CC(A)}$ = 0.8 V	0.70$V_{CC(A)}$	-	0.70$V_{CC(A)}$	-	V
		$V_{CC(A)}$ = 1.1 V to 1.95 V	0.65$V_{CC(A)}$	-	0.65$V_{CC(A)}$	-	V
		$V_{CC(A)}$ = 2.3 V to 2.7 V	1.6	-	1.6	-	V
		$V_{CC(A)}$ = 3.0 V to 3.6 V	2	-	2	-	V
V_{IL}	LOW-level input voltage	inputs					
		$V_{CC(A)}$ = 0.8 V	-	0.30$V_{CC(A)}$	-	0.30$V_{CC(A)}$	V
		$V_{CC(A)}$ = 1.1 V to 1.95 V	-	0.35$V_{CC(A)}$	-	0.35$V_{CC(A)}$	V
		$V_{CC(A)}$ = 2.3 V to 2.7 V	-	0.7	-	0.7	V
		$V_{CC(A)}$ = 3.0 V to 3.6 V	-	0.9	-	0.9	V
V_{OH}	HIGH-level output voltage	V_I = V_{IH} or V_{IL}					
		I_O = -100 µA; $V_{CC(B)}$ = 0.8 V to 3.6 V	$V_{CC(B)}$ - 0.1	-	$V_{CC(B)}$ - 0.1	-	V
		I_O = -3 mA; $V_{CC(B)}$ = 1.1 V	0.85	-	0.85	-	V
		I_O = -6 mA; $V_{CC(B)}$ = 1.4 V	1.05	-	1.05	-	V
		I_O = -8 mA; $V_{CC(B)}$ = 1.65 V	1.2	-	1.2	-	V
		I_O = -9 mA; $V_{CC(B)}$ = 2.3 V	1.75	-	1.75	-	V
		I_O = -12 mA; $V_{CC(B)}$ = 3.0 V	2.3	-	2.3	-	V

Symbol	Parameter	Conditions	-40 °C to +85 °C		-40 °C to +125 °C		Unit
			Min	Max	Min	Max	
V_{OL}	LOW-level output voltage	$V_I = V_{IH}$ or V_{IL}					
		I_O = 100 µA; $V_{CC(B)}$ = 0.8 V to 3.6 V	-	0.1	-	0.1	V
		I_O = 3 mA; $V_{CC(B)}$ = 1.1 V	-	0.25	-	0.25	V
		I_O = 6 mA; $V_{CC(B)}$ = 1.4 V	-	0.35	-	0.35	V
		I_O = 8 mA; $V_{CC(B)}$ = 1.65 V	-	0.45	-	0.45	V
		I_O = 9 mA; $V_{CC(B)}$ = 2.3 V	-	0.55	-	0.55	V
		I_O = 12 mA; $V_{CC(B)}$ = 3.0 V	-	0.7	-	0.7	V
I_I	input leakage current	inputs; V_I = 0 V or 3.6 V; $V_{CC(A)}$ = 0 V to 3.6 V	-	±1	-	±1.5	µA
I_{OZ}	OFF-state output current	output; V_O = 0 V or $V_{CC(B)}$; $V_{CC(A)}$ = 0 V; $V_{CC(B)}$ = 3.6 V	-	±5	-	±7.5	µA
I_{OFF}	power-off leakage current	output; V_I or V_O = 0 V to 3.6 V; $V_{CC(B)}$ = 0 V; $V_{CC(A)}$ = 0.8 V to 3.6 V	-	±5	-	±35	µA
I_{CC}	supply current	$V_{CC(A)}$; V_I = 0 V or $V_{CC(A)}$; I_O = 0 A					
		$V_{CC(A)}$ = 0.8 V to 3.6 V; $V_{CC(B)}$ = 0.8 V to 3.6 V	-	8	-	11.5	µA
		$V_{CC(A)}$ = 3.6 V; $V_{CC(B)}$ = 0 V	-	8	-	11.5	µA
		$V_{CC(A)}$ = 0 V; $V_{CC(B)}$ = 3.6 V	-2	-	-8	-	µA
		$V_{CC(B)}$; V_I = 0 V or $V_{CC(A)}$; I_O = 0 A					
		$V_{CC(A)}$ = 0.8 V to 3.6 V; $V_{CC(B)}$ = 0.8 V to 3.6 V	-	8	-	11.5	µA
		$V_{CC(A)}$ = 3.6 V; $V_{CC(B)}$ = 0 V	-2	-	-8	-	µA
		$V_{CC(A)}$ = 0 V; $V_{CC(B)}$ = 3.6 V	-	8	-	11.5	µA

11. Dynamic characteristics

Table 9. Typical dynamic characteristics at T_{amb} = 25 °C

Voltages are referenced to GND (ground = 0 V); for test circuit see Fig. 3; for waveform see Fig. 2.

Symbol [1]	Parameter	Conditions	$V_{CC(B)}$			Unit
			1.8 V	2.5 V	3.3 V	
t_{pd}	propagation delay	A, B, STRA and STRB to Y				
		$V_{CC(A)}$ = 1.8 V	3.2	2.8	2.8	ns
		$V_{CC(A)}$ = 2.5 V	2.6	2.2	2.1	ns
		$V_{CC(A)}$ = 3.3 V	2.4	2.0	1.9	ns

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

Table 10. Typical power dissipation capacitance at $V_{CC(A)} = V_{CC(B)}$ and T_{amb} = 25 °C

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

Symbol [1] [2]	Parameter	Conditions	$V_{CC(A)}$ and $V_{CC(B)}$						Unit
			0.8 V	1.2 V	1.5 V	1.8 V	2.5 V	3.3 V	
C_{PD}	power dissipation capacitance	inputs	0.7	0.75	0.80	0.90	1.2	1.5	pF
		output	10	11	11	11	14	18	pF

[1] C_{PD} is used to determine the dynamic power dissipation (P_D in µW).
$P_D = C_{PD} \times V_{CC}{}^2 \times f_i \times N + \sum(C_L \times V_{CC}{}^2 \times f_o)$ where:
f_i = input frequency in MHz;
f_o = output frequency in MHz;
C_L = 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.

[2] f_i = 10 MHz; V_I = GND to V_{CC}; $t_r = t_f$ = 1 ns; C_L = 0 pF; R_L = ∞ Ω.

Table 11. Dynamic characteristics for temperature range -40 °C to +85 °C

Voltages are referenced to GND (ground = 0 V); for test circuit see Fig. 3; for waveform see Fig. 2.

Symbol [1]	Parameter	Conditions	$V_{CC(B)}$										Unit
			1.2 V ± 0.1 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		
			Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	
t_{pd}	propagation delay	A, B, STRA and STRB to Y											
		$V_{CC(A)}$ = 1.1 V to 1.3 V	2.2	15.6	2.0	12.8	1.9	12.0	1.9	11.6	1.8	11.9	ns
		$V_{CC(A)}$ = 1.4 V to 1.6 V	1.7	12.3	1.6	9.2	1.5	8.2	1.4	7.4	1.4	7.3	ns
		$V_{CC(A)}$ = 1.65 V to 1.95 V	1.6	11.1	1.4	8.0	1.4	7.0	1.3	6.1	1.3	5.8	ns
		$V_{CC(A)}$ = 2.3 V to 2.7 V	1.4	9.8	1.2	6.6	1.1	5.5	1.1	4.5	1.0	4.2	ns
		$V_{CC(A)}$ = 3.0 V to 3.6 V	1.3	9.3	1.2	6.2	1.0	5.1	0.9	4.0	0.9	3.7	ns

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

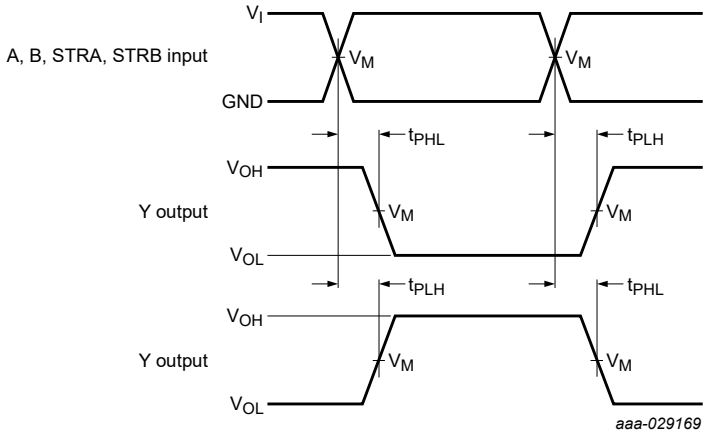
Table 12. Dynamic characteristics for temperature range -40 °C to +125 °C

Voltages are referenced to GND (ground = 0 V); for test circuit see Fig. 3; for waveform see Fig. 2.

Symbol [1]	Parameter	Conditions	$V_{CC(B)}$										Unit
			1.2 V ± 0.1 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		
			Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	
t_{pd}	propagation delay	A, B, STRA and STRB to Y											
		$V_{CC(A)}$ = 1.1 V to 1.3 V	2.2	16.0	2.0	13.2	1.9	12.4	1.9	12.0	1.8	12.4	ns
		$V_{CC(A)}$ = 1.4 V to 1.6 V	1.7	12.8	1.6	9.8	1.5	8.8	1.4	7.9	1.4	7.8	ns
		$V_{CC(A)}$ = 1.65 V to 1.95 V	1.6	11.6	1.4	8.5	1.4	7.4	1.3	6.4	1.3	6.1	ns
		$V_{CC(A)}$ = 2.3 V to 2.7 V	1.4	10.2	1.2	7.0	1.1	6.0	1.1	4.8	1.0	4.5	ns
		$V_{CC(A)}$ = 3.0 V to 3.6 V	1.3	9.6	1.2	6.6	1.0	5.4	0.9	4.3	0.9	3.9	ns

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

12. Waveforms and test circuit



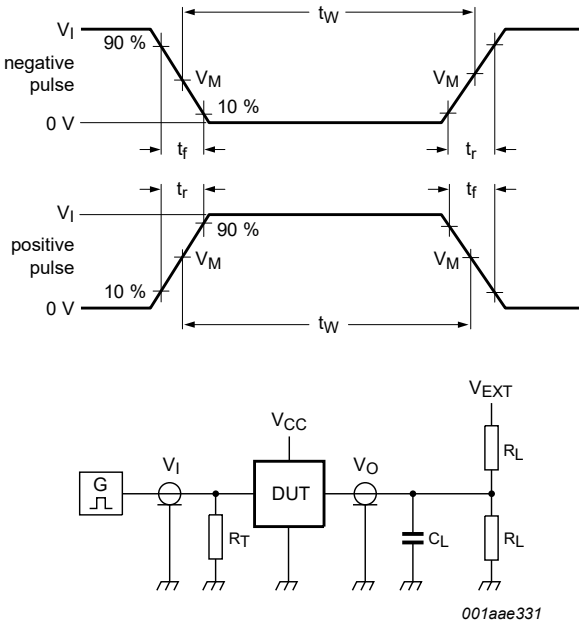
Measurement points are given in Table 13.

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

Fig. 2. Input A, B, STRA and STRB to output Y propagation delay times

Table 13. Measurement points

Supply voltage	Inputs	Output
$V_{CC(A)}$, $V_{CC(B)}$	V_M	V_M
0.8 V to 1.6 V	0.5 × $V_{CC(A)}$	0.5 × $V_{CC(B)}$
1.65 V to 2.7 V	0.5 × $V_{CC(A)}$	0.5 × $V_{CC(B)}$
3.0 V to 3.6 V	0.5 × $V_{CC(A)}$	0.5 × $V_{CC(B)}$



Test data is given in Table 14.

Definitions test circuit:

R_L = Load resistance;

C_L = Load capacitance including jig and probe capacitance;

R_T = Termination resistance;

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

Fig. 3. Test circuit for measuring switching times

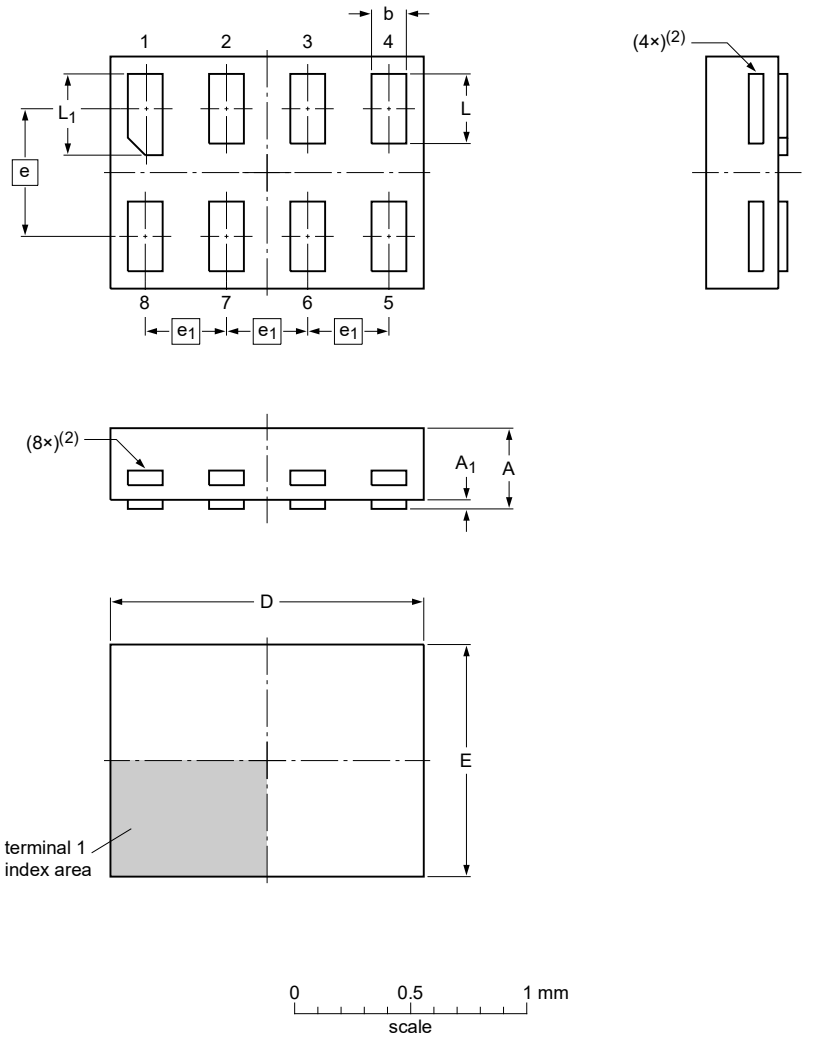
Table 14. Test data

Supply voltage	Input		Load		V_{EXT}
$V_{CC(A)}$, $V_{CC(B)}$	V_I	$\Delta t/\Delta V$ [1]	C_L	R_L	t_{PLH}, t_{PHL}
0.8 V to 1.6 V	$V_{CC(A)}$	≤ 1.0 ns/V	15 pF	2 kΩ	open
1.65 V to 2.7 V	$V_{CC(A)}$	≤ 1.0 ns/V	15 pF	2 kΩ	open
3.0 V to 3.6 V	$V_{CC(A)}$	≤ 1.0 ns/V	15 pF	2 kΩ	open

[1] dV/dt ≥ 1.0 V/ns

13. Package outline

XSON8: extremely thin small outline package; no leads;
8 terminals; body 1.35 x 1.0 x 0.35 mm **SOT1203**



Dimensions

Unit		A(1)	A1	b	D	E	e	e1	L	L1
mm	max	0.35	0.04	0.20	1.40	1.05			0.35	0.40
	nom			0.15	1.35	1.00	0.55	0.35	0.30	0.35
	min			0.12	1.30	0.95			0.27	0.32

Note
1. Including plating thickness.
2. Visible depending upon used manufacturing technology.

sot1203_po

Outline version	References				European projection	Issue date
	IEC	JEDEC	JEITA			
SOT1203						~~10-04-02~~ 10-04-06

Fig. 4. Package outline SOT1203 (XSON8)

14. Abbreviations

Table 15. Abbreviations

Acronym	Description
ANSI	American National Standards Institute
CDM	Charged Device Model
DUT	Device Under Test
ESD	ElectroStatic Discharge
ESDA	ElectroStatic Discharge Association
HBM	Human Body Model
JEDEC	Joint Electron Device Engineering Council

15. Revision history

Table 16. Revision history

Document ID	Release date	Data sheet status	Change notice	Supersedes
74AVC1T8832 v.2	20240625	Product data sheet	-	74AVC1T8832 v.1
Modifications:	• Section 2: ESD specification updated according to the latest JEDEC standard.			
74AVC1T8832 v.1	20181010	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.

Definitions

Draft — The document is a draft version only. The content is still under internal review and subject to formal approval, which may result in modifications or additions. Nexperia does not give any representations or warranties as to the accuracy or completeness of information included herein and shall have no liability for the consequences of use of such information.

Short data sheet — A short data sheet is an extract from a full data sheet with the same product type number(s) and title. A short data sheet is intended for quick reference only and should not be relied upon to contain detailed and full information. For detailed and full information see the relevant full data sheet, which is available on request via the local Nexperia sales office. In case of any inconsistency or conflict with the short data sheet, the full data sheet shall prevail.

Product specification — The information and data provided in a Product data sheet shall define the specification of the product as agreed between Nexperia and its customer, unless Nexperia and customer have explicitly agreed otherwise in writing. In no event however, shall an agreement be valid in which the Nexperia product is deemed to offer functions and qualities beyond those described in the Product data sheet.

Disclaimers

Limited warranty and liability — Information in this document is believed to be accurate and reliable. However, Nexperia does not give any representations or warranties, expressed or implied, as to the accuracy or completeness of such information and shall have no liability for the consequences of use of such information. Nexperia takes no responsibility for the content in this document if provided by an information source outside of Nexperia.

In no event shall Nexperia be liable for any indirect, incidental, punitive, special or consequential damages (including - without limitation - lost profits, lost savings, business interruption, costs related to the removal or replacement of any products or rework charges) whether or not such damages are based on tort (including negligence), warranty, breach of contract or any other legal theory.

Notwithstanding any damages that customer might incur for any reason whatsoever, Nexperia's aggregate and cumulative liability towards customer for the products described herein shall be limited in accordance with the Terms and conditions of commercial sale of Nexperia.

Right to make changes — Nexperia reserves the right to make changes to information published in this document, including without limitation specifications and product descriptions, at any time and without notice. This document supersedes and replaces all information supplied prior to the publication hereof.

Suitability for use — Nexperia products are not designed, authorized or warranted to be suitable for use in life support, life-critical or safety-critical systems or equipment, nor in applications where failure or malfunction of an Nexperia product can reasonably be expected to result in personal injury, death or severe property or environmental damage. Nexperia and its suppliers accept no liability for inclusion and/or use of Nexperia products in such equipment or applications and therefore such inclusion and/or use is at the customer's own risk.

Quick reference data — The Quick reference data is an extract of the product data given in the Limiting values and Characteristics sections of this document, and as such is not complete, exhaustive or legally binding.

Applications — Applications that are described herein for any of these products are for illustrative purposes only. Nexperia makes no representation or warranty that such applications will be suitable for the specified use without further testing or modification.

Customers are responsible for the design and operation of their applications and products using Nexperia products, and Nexperia accepts no liability for any assistance with applications or customer product design. It is customer's sole responsibility to determine whether the Nexperia product is suitable and fit for the customer's applications and products planned, as well as for the planned application and use of customer's third party customer(s). Customers should provide appropriate design and operating safeguards to minimize the risks associated with their applications and products.

Nexperia does not accept any liability related to any default, damage, costs or problem which is based on any weakness or default in the customer's applications or products, or the application or use by customer's third party customer(s). Customer is responsible for doing all necessary testing for the customer's applications and products using Nexperia products in order to avoid a default of the applications and the products or of the application or use by customer's third party customer(s). Nexperia does not accept any liability in this respect.

Limiting values — Stress above one or more limiting values (as defined in the Absolute Maximum Ratings System of IEC 60134) will cause permanent damage to the device. Limiting values are stress ratings only and (proper) operation of the device at these or any other conditions above those given in the Recommended operating conditions section (if present) or the Characteristics sections of this document is not warranted. Constant or repeated exposure to limiting values will permanently and irreversibly affect the quality and reliability of the device.

Terms and conditions of commercial sale — Nexperia products are sold subject to the general terms and conditions of commercial sale, as published at http://www.nexperia.com/profile/terms, unless otherwise agreed in a valid written individual agreement. In case an individual agreement is concluded only the terms and conditions of the respective agreement shall apply. Nexperia hereby expressly objects to applying the customer's general terms and conditions with regard to the purchase of Nexperia products by customer.

No offer to sell or license — Nothing in this document may be interpreted or construed as an offer to sell products that is open for acceptance or the grant, conveyance or implication of any license under any copyrights, patents or other industrial or intellectual property rights.

Export control — This document as well as the item(s) described herein may be subject to export control regulations. Export might require a prior authorization from competent authorities.

Non-automotive qualified products — Unless this data sheet expressly states that this specific Nexperia product is automotive qualified, the product is not suitable for automotive use. It is neither qualified nor tested in accordance with automotive testing or application requirements. Nexperia accepts no liability for inclusion and/or use of non-automotive qualified products in automotive equipment or applications.

In the event that customer uses the product for design-in and use in automotive applications to automotive specifications and standards, customer (a) shall use the product without Nexperia's warranty of the product for such automotive applications, use and specifications, and (b) whenever customer uses the product for automotive applications beyond Nexperia's specifications such use shall be solely at customer's own risk, and (c) customer fully indemnifies Nexperia for any liability, damages or failed product claims resulting from customer design and use of the product for automotive applications beyond Nexperia's standard warranty and Nexperia's product specifications.

Translations — A non-English (translated) version of a document is for reference only. The English version shall prevail in case of any discrepancy between the translated and English versions.

Trademarks

Notice: All referenced brands, product names, service names and trademarks are the property of their respective owners.

Contents

For more information, please visit: http://www.nexperia.com
For sales office addresses, please send an email to: salesaddresses@nexperia.com
Date of release: 25 June 2024

单击下面可查看定价，库存，交付和生命周期等信息

>>Nexperia(安世)