



Title of Change:	Fab, Assembly and Test Site Addition and Datasheet change for Minigates US8					
Proposed first ship date:	2 January 2019 or earlier upon customer approval					
Contact information:	Contact your local ON Semiconductor Sales Office or < logic.fpcn@onsemi.com >					
Samples:	Contact your local ON Semiconductor Sales Office or <PCN.samples@onsemi.com> Sample requests are to be submitted no later than 30 days from the date of first notification, Initial PCN or Final PCN, for this change.					
Additional Reliability Data:	Contact your local ON Semiconductor Sales Office or <Don.Knudsen@onsemi.com>					
Type of notification:	This is a Final Product/Process Change Notification (FPCN) sent to customers. FPCNs are issued 90 days prior to implementation of the change. ON Semiconductor will consider this change accepted, unless an inquiry is made in writing within 30 days of delivery of this notice. To do so, contact <PCN.Support@onsemi.com>					
Change Identification:	Part	Affected product will be marked with new marking style per below.				
Change Category:	☒ Wafer Fab Change ☒ Assembly Change ☒ Test Change ☐ Other _____					
Change Sub-Category(s): ☒ Manufacturing Site Addition ☒ Material Change ☒ Datasheet/Product Doc change ☒ Manufacturing Site Transfer ☐ Product specific change ☒ Shipping/Packaging/Marking ☒ Manufacturing Process Change ☐ Other: _____						
Sites Affected:	ON Semiconductor Sites: ON Seremban, Malaysia			External Foundry/Subcon Sites: Subcon Thailand External Foundry Japan External Foundry Israel		
Description and Purpose: Qualify new die source for Minigates and adding additional subcon site to increase capacity.						
Material to be changed	Before Change (Existing flow)	After 90 day expiration and before January 1st, 2019			After 1st Jan, 2019 (New flow only)	
		(Existing flow)	(New flow)		(New flow)	
Assy Site	Onsemi Malaysia	Onsemi Malaysia	Subcon Thailand	Onsemi Malaysia	Subcon Thailand	Onsemi Malaysia
Wire	Au	Au	PCC	PCC	PCC	PCC
Mold Compound	MC SUMITOMO EME-G600FB	MC SUMITOMO EME-G600FB	Molding Compound G600	MC SUMITOMO EME-G600FB (Halide Free)	Molding Compound G600	MC SUMITOMO EME-G600FB (Halide Free)
Lead frame	AG STRIPE OVER D005	AG STRIPE OVER D005	LF; PPF+ME2; US8; DAP 59x38	LF US8 μPPF RT-UPG 4-Tie Bars (PPF)	LF; PPF+ME2; US8; DAP 59x38	LF US8 μPPF RT-UPG 4-Tie Bars (PPF)
Die Attach	DA EN4370K3 SNAP CURE NON-C	DA EN4370K3 SNAP CURE NON-C	Non-Conductive DAF, HR-5140	DA AB 8006NS 10CC (non-conductive) (WBC)	Non-Conductive DAF, HR-5140	DA AB 8006NS 10CC (non-conductive) (WBC)
Plating	100% Sn	100% Sn	Preplated	Preplated	Preplated	Preplated
Die Source	Subcon Israel	Subcon Israel	Subcon Japan	Subcon Japan	Subcon Japan	Subcon Japan



	From	New Flow
	Onsemi Malaysia	New Flow
	MARKING DIAGRAM <i>Product marking change</i>	MARKING DIAGRAM XXXX=Device Code, A= Assy location, L= Lot Code, Y=Year Code, W =Week Code
	LR =Device Code, M = Date Code, Dot(.)=Lead Free Package	

Datasheet change :

Existing

MAXIMUM RATINGS

Symbol	Parameter	Value	Units
V_{CC}	DC Supply Voltage	-0.5 to +7.0	V
V_I	DC Input Voltage	-0.5 to +7.0	V
V_O	DC Output Voltage – Output in High or Low State (Note 1)	-0.5 to $V_{CC} + 0.5$	V

V_{ESD}	ESD Withstand Voltage Human Body Model (Note 3) Machine Model (Note 4) Charged Device Model (Note 5)	>4000 >200 N/A	V
$I_{LATCHUP}$	Latchup Performance Above V_{CC} and Below GND at 125°C (Note 6)	±100	mA

V_O	Output Voltage (HIGH or LOW State)	0	5.5	V
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$\Delta t/\Delta V$	Input Transition Rise or Fall Rate $V_{CC} = 2.5\text{ V} \pm 0.2\text{ V}$ $V_{CC} = 3.0\text{ V} \pm 0.3\text{ V}$ $V_{CC} = 5.0\text{ V} \pm 0.5\text{ V}$	0 0 0	20 10 5.0	ns/V
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New

MAXIMUM RATINGS

Symbol	Characteristics	Value	Unit
V_{CC}	DC Supply Voltage	-0.5 to +6.5	V
V_{IN}	DC Input Voltage	-0.5 to +6.5	V
V_{OUT}	DC Output Voltage Active-Mode (High or Low State) Tri-State Mode (Note 1) Power-Down Mode ($V_{CC} = 0\text{ V}$)	-0.5 to $V_{CC} + 0.5$ -0.5 to +7.0 -0.5 to +7.0	V
	DC Output Voltage Active-Mode (High or Low State) Tri-State Mode (Note 1) Power-Down Mode ($V_{CC} = 0\text{ V}$)	-0.5 to $V_{CC} + 0.5$ -0.5 to +6.5 -0.5 to +6.5	V

V_{ESD}	ESD Withstand Voltage (Note 3)	Human Body Model Charged Device Model	2000 1000	V
$I_{LATCHUP}$	Latchup Performance (Note 4)		±100	mA

V_{OUT}	DC Output Voltage	Active-Mode (High or Low State) Tri-State Mode (Note 1) Power-Down Mode ($V_{CC} = 0\text{ V}$)	0	V_{CC}	V
			0	5.5	
			0	5.5	

t_r, t_f	Input Rise and Fall Time	$V_{CC} = 3.0\text{ V to }3.6\text{ V}$ $V_{CC} = 4.5\text{ V to }5.5\text{ V}$	0 0	100 20	ns/V
	Input Rise and Fall Time	$V_{CC} = 1.85\text{ V to }1.95\text{ V}$ $V_{CC} = 2.3\text{ V to }2.7\text{ V}$ $V_{CC} = 3.0\text{ V to }3.6\text{ V}$ $V_{CC} = 4.5\text{ V to }5.5\text{ V}$	0 0 0 0	20 20 10 5	



Existing

V_{IH}	High-Level Input Voltage	1.65	0.75 V_{CC}	0.75 V_{CC}	V
		2.3 to 5.5	0.7 V_{CC}	0.7 V_{CC}	
V_{IL}	Low-Level Input Voltage	1.65	0.25 V_{CC}	0.25 V_{CC}	V
		2.3 to 5.5	0.3 V_{CC}	0.3 V_{CC}	

I_{IN}	Input Leakage Current	$V_{IN} = 5.5 \text{ V or GND}$	0 to 5.5	± 0.1	± 1.0	μA
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V_T+	Positive Input Threshold Voltage	2.3	1.0	1.5	1.8	1.0	1.8	V
		2.7	1.2	1.7	2.0	1.2	2.0	
		3.0	1.3	1.9	2.2	1.3	2.2	
		4.5	1.9	2.7	3.1	1.9	3.1	
		5.5	2.2	3.3	3.6	2.2	3.6	
V_T-	Negative Input Threshold Voltage	2.3	0.4	0.75	1.15	0.4	1.15	V
		2.7	0.5	0.87	1.4	0.5	1.4	
		3.0	0.6	1.0	1.5	0.6	1.5	
		4.5	1.0	1.5	2.0	1.0	2.0	
		5.5	1.2	1.9	2.3	1.2	2.3	

New

V_{IH}	High-Level Input Voltage	1.65 to 1.95	0.65 V_{CC}	0.65 V_{CC}	V
		2.3 to 5.5	0.70 V_{CC}	0.70 V_{CC}	
V_{IL}	Low-Level Input Voltage	1.65 to 1.95	0.35 V_{CC}	0.35 V_{CC}	V
		2.3 to 5.5	0.30 V_{CC}	0.30 V_{CC}	

I_{IN}	Input Leakage Current	$V_{IN} = 5.5 \text{ V or GND}$	1.65 to 5.5	± 0.1	± 1.0	μA
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V_T+	Positive Input Threshold Voltage	2.3	1.5	1.8	1.8	V
		2.7	1.7	2.0	2.0	
		3.0	1.9	2.2	2.2	
		4.5	2.7	3.1	3.1	
		5.5	3.3	3.6	3.6	
V_T-	Negative Input Threshold Voltage	2.3	1.15	0.4	1.15	V
		2.7	0.5	1.4	0.5	
		3.0	0.6	1.5	0.6	
		4.5	1.0	2.0	1.0	
		5.5	1.2	2.3	1.2	

New

AC ELECTRICAL CHARACTERISTICS ($t_R = t_F = 3.0 \text{ ns}$)

Symbol	Parameter	Condition	V_{CC} (V)	$T_A = 25^\circ\text{C}$			$-65^\circ\text{C} \leq T_A \leq 125^\circ\text{C}$			Units
				Min	Typ	Max	Min	Typ	Max	
t_{PLH} t_{PLH}	Propagation Delay AN to YN (Figures 3 and 4)	$R_L = 1 \text{ M}\Omega$, $C_L = 15 \text{ pF}$	1.8 $\pm$ 0.15 2.5 $\pm$ 0.2	2.0	1.2	7.5	2.0	1.3	8	ns
		$R_L = 1 \text{ M}\Omega$, $C_L = 15 \text{ pF}$	3.3 $\pm$ 0.3	0.8	5.2	0.8	5.5			
		$R_L = 500 \Omega$, $C_L = 50 \text{ pF}$	5.0 $\pm$ 0.5	0.5	4.5	0.5	4.8			
		$R_L = 1 \text{ M}\Omega$, $C_L = 15 \text{ pF}$	5.0 $\pm$ 0.5	0.8	5.0	0.8	5.3			
t_{OSLH} t_{OSLH}	Output to Output Skew (Note 7)	$R_L = 500 \Omega$, $C_L = 50 \text{ pF}$	3.3 $\pm$ 0.3		1.0		1.0			ns
		$R_L = 500 \Omega$, $C_L = 50 \text{ pF}$	5.0 $\pm$ 0.5		0.8		0.8			
t_{PZH} t_{PZH}	Output Enable Time (Figures 5, 6 and 7)		1.8 $\pm$ 0.15 2.5 $\pm$ 0.2	3.0	1.8	8.5	3.0	1.5	9.0	ns
			3.3 $\pm$ 0.3	1.2	6.2	1.2	6.5			
			5.0 $\pm$ 0.5	0.8	5.5	0.8	5.8			
t_{PHZ} t_{PHZ}	Output Enable Time (Figures 5, 6 and 7)		1.8 $\pm$ 0.15 2.5 $\pm$ 0.2	2.5	1.2	8.0	2.5	1.5	8.5	ns
			3.3 $\pm$ 0.3	0.8	5.7	0.8	6.0			
			5.0 $\pm$ 0.5	0.3	4.7	0.3	5.0			

Symbol	Parameter	Condition	V_{CC} (V)	$T_A = 25^\circ\text{C}$			$-65^\circ\text{C} \leq T_A \leq 125^\circ\text{C}$			Units
				Min	Typ	Max	Min	Typ	Max	
t_{PLH} t_{PLH}	Propagation Delay AN to YN (Figures 3 and 4)	$R_L = 1 \text{ M}\Omega$, $C_L = 15 \text{ pF}$	1.8 $\pm$ 0.15 2.5 $\pm$ 0.2		1.2	7.5			13	ns
		$R_L = 1 \text{ M}\Omega$, $C_L = 15 \text{ pF}$	3.3 $\pm$ 0.3		5.2	5.7			5.5	
		$R_L = 500 \Omega$, $C_L = 50 \text{ pF}$	5.0 $\pm$ 0.5		4.5	5.0			4.8	
		$R_L = 1 \text{ M}\Omega$, $C_L = 15 \text{ pF}$	5.0 $\pm$ 0.5		4.5	5.0			5.3	
t_{OSLH} t_{OSLH}	Output to Output Skew (Note 7)	$R_L = 500 \Omega$, $C_L = 50 \text{ pF}$	3.3 $\pm$ 0.3		1.0				1.0	ns
		$R_L = 500 \Omega$, $C_L = 50 \text{ pF}$	5.0 $\pm$ 0.5		0.8				0.8	
t_{PZH} t_{PZH}	Output Enable Time (Figures 5, 6 and 7)		1.8 $\pm$ 0.15 2.5 $\pm$ 0.2		1.4	8.5			15	ns
			3.3 $\pm$ 0.3		6.2				6.5	
			5.0 $\pm$ 0.5		5.5				5.8	
t_{PHZ} t_{PHZ}	Output Enable Time (Figures 5, 6 and 7)		1.8 $\pm$ 0.15 2.5 $\pm$ 0.2		1.2	8.0			13	ns
			3.3 $\pm$ 0.3		5.7				6.0	
			5.0 $\pm$ 0.5		4.7				5.0	

Reliability Data Summary:

QV DEVICE NAME: NLV37WZ14USG

RMS S44271

PACKAGE US8 STARS

Test	Specification	Condition	Interval	Results
HTOL	JESD22-A108	Ta=125°C, 100 % max rated Vcc	1008 hrs	0/252
HTSL	JESD22-A103	Ta= 150°C	1008 hrs	0/258
TC	JESD22-A104	Ta= -65°C to +150°C	500 cyc	0/252
HAST	JESD22-A110	130°C, 85% RH, 18.8psig, bias	96 hrs	0/324
uHAST	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs	0/252
PC	J-STD-020 JESD-A113	MSL 1 @ 260 °C		0/828
RSH	JESD22- B106	Ta = 265C, 10 sec		0/90
SD	JTSD002	Ta = 245C, 10 sec		0/45



QV DEVICE NAME: NLV37WZ14USG

RMS S43802

PACKAGE US8 SBN

Test	Specification	Condition	Interval	Results
HTSL	JESD22-A103	Ta= 150°C	1008 hrs	0/258
TC	JESD22-A104	Ta= -65°C to +150°C	500 cyc	0/252
HAST	JESD22-A110	130°C, 85% RH, 18.8psig, bias	96 hrs	0/324
uHAST	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs	0/252
PC	J-STD-020 JESD-A113	MSL 1 @ 260 °C		0/828
RSH	JESD22- B106	Ta = 265C, 10 sec		0/90
SD	JTSD002	Ta = 245C, 10 sec		0/45

Electrical Characteristic Summary:

Electrical characteristics Available upon request.

List of Affected Parts:

Part Number	Qualification Vehicle
NL17SZ74USG	NLV37WZ14USG
NL27WZ00USG	NLV37WZ14USG
NL27WZ02USG	NLV37WZ14USG
NL27WZ08USG	NLV37WZ14USG
NL27WZ125USG	NLV37WZ14USG
NL27WZ126USG	NLV37WZ14USG
NL27WZ32USG	NLV37WZ14USG
NL27WZ86USG	NLV37WZ14USG
NL37WZ04USG	NLV37WZ14USG
NL37WZ06USG	NLV37WZ14USG
NL37WZ07USG	NLV37WZ14USG
NL37WZ14USG	NLV37WZ14USG
NL37WZ16USG	NLV37WZ14USG
NL37WZ17USG	NLV37WZ14USG
NLJ27WZ125USG	NLV37WZ14USG
NLJ37WZ07USG	NLV37WZ14USG
NLJ37WZ14USG	NLV37WZ14USG
NLJ37WZ16USG	NLV37WZ14USG

Japanese translation of the notification starts here.
通知の日本語訳はここから始まります。

Note: *The Japanese version is for reference only. In case of any differences between the English and Japanese version, the English version shall control.*

注：日本語版は参照用です。英語版と日本語版の違いがある場合は、英語版が優先されます。



最終製品 / プロセス変更通知

文書番号: FPCN22190X

発行日: 26 September 2018

変更件名:	Minigates US8 に対する製造、組み立て、試験拠点の追加およびデータシート変更					
初回出荷予定日:	2 January 2019 または、顧客の承認が得られた場合はそれ以前					
連絡先情報:	現地のオン・セミコンダクター営業所または <logic.fpcn@onsemi.com> にお問い合わせください。					
サンプル:	現地のオン・セミコンダクター営業所または <PCN.samples@onsemi.com> にお問い合わせください。 サンプルは、今回の変更の初回通知、初回 PCN、または最終 PCN の日付から 30 日以内に要求してください。					
その他の信頼性データ:	現地のオン・セミコンダクター営業所または <Don.Knudsen@onsemi.com> にお問い合わせください。					
通知の種類:	これは、お客様宛の最終製品 / プロセス変更通知 (FPCN) です。FPCN は、変更実施の 90 日前に発行されます。 オン・セミコンダクターは、この通知の送付から 30 日以内に書面による問い合わせが行われない限り、この変更が承諾されたものとみなします。お問い合わせは、<PCN.Support@onsemi.com> をお願いします。					
変更部品の識別:	影響を受ける製品は以下の通りの新表示形式により表示されます。					
変更カテゴリ:	☒ ウェハファブの変更 ☒ アセンブリの変更 ☒ 試験の変更 ☐ その他 _____					
変更サブカテゴリ:	☒ 製造拠点の追加 ☒ 製造拠点の移転 ☒ 製造プロセスの変更 ☒ 材料の変更 ☐ 製品仕様の変更 ☒ データシート/製品資料の変更 ☒ 出荷/パッケージング/表記 ☐ その他: _____					
影響を受ける拠点:	オン・セミコンダクター拠点: オン セレンバン (マレーシア)	外部製造工場 / 下請け業者拠点: 下請け業者 (タイ) 外部製造工場 (日本) 外部製造工場 (イスラエル)				
説明および目的: Minigates 用の新しいダイソースの認定し、生産能力拡大のため下請け業者業者拠点を追加。						
Material to be changed	Before Change (Existing flow)	After 90 day expiration and before January 1st, 2019		After 1st Jan, 2019 (New flow only)		
		(Existing flow)	(New flow)	(New flow)		
Assy Site	Onsemi Malaysia	Onsemi Malaysia	Subcon Thailand	Onsemi Malaysia	Subcon Thailand	Onsemi Malaysia
Wire	Au	Au	PCC	PCC	PCC	PCC
Mold Compound	MC SUMITOMO EME-G600FB	MC SUMITOMO EME-G600FB	Molding Compound G600	MC SUMITOMO EME-G600FB (Halide Free)	Molding Compound G600	MC SUMITOMO EME-G600FB (Halide Free)
Lead frame	AG STRIPE OVER D005	AG STRIPE OVER D005	LF; PPF+ME2; US8; DAP 59x38	LF US8 μPPF RT-UPG 4-Tie Bars (PPF)	LF; PPF+ME2; US8; DAP 59x38	LF US8 μPPF RT-UPG 4-Tie Bars (PPF)
Die Attach	DA EN4370K3 SNAP CURE NON-C	DA EN4370K3 SNAP CURE NON-C	Non-Conductive DAF, HR-5140	DA AB 8006NS 10CC (non-conductive) (WBC)	Non-Conductive DAF, HR-5140	DA AB 8006NS 10CC (non-conductive) (WBC)
Plating	100% Sn	100% Sn	Preplated	Preplated	Preplated	Preplated
Die Source	Subcon Israel	Subcon Israel	Subcon Japan	Subcon Japan	Subcon Japan	Subcon Japan



	From	New Flow
	Onsemi Malaysia	New Flow
	MARKING DIAGRAM	MARKING DIAGRAM
<i>Product marking change</i>	LR = Device Code, M = Date Code, Dot(.) = Lead Free Package	XXXX = Device Code, A = Assy location, L = Lot Code, Y = Year Code, W = Week Code

データシート変更:

既存データ

MAXIMUM RATINGS

Symbol	Parameter	Value	Units
V_{CC}	DC Supply Voltage	-0.5 to +7.0	V
V_I	DC Input Voltage	-0.5 to +7.0	V
V_O	DC Output Voltage – Output in High or Low State (Note 1)	-0.5 to $V_{CC} + 0.5$	V

V_{ESD}	ESD Withstand Voltage Human Body Model (Note 3) Machine Model (Note 4) Charged Device Model (Note 5)	>4000 >200 N/A	V
$I_{LATCHUP}$	Latchup Performance Above V_{CC} and Below GND at 125°C (Note 6)	± 100	mA

V_O	Output Voltage (HIGH or LOW State)	0	5.5	V
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$\Delta t / \Delta V$	Input Transition Rise or Fall Rate $V_{CC} = 2.5 \text{ V} \pm 0.2 \text{ V}$ $V_{CC} = 3.0 \text{ V} \pm 0.3 \text{ V}$ $V_{CC} = 5.0 \text{ V} \pm 0.5 \text{ V}$	0 0 0	20 10 5.0	ns/V
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新規

MAXIMUM RATINGS

Symbol	Characteristics	Value	Unit
V_{CC}	DC Supply Voltage	-0.5 to +6.5	V
V_{IN}	DC Input Voltage	-0.5 to +6.5	V
V_{OUT}	DC Output Voltage Active-Mode (High or Low State) Tri-State Mode (Note 1) Power-Down Mode ($V_{CC} = 0 \text{ V}$)	-0.5 to $V_{CC} + 0.5$ -0.5 to +7.0 -0.5 to +7.0	V
	DC Output Voltage Active-Mode (High or Low State) Tri-State Mode (Note 1) Power-Down Mode ($V_{CC} = 0 \text{ V}$)	-0.5 to $V_{CC} + 0.5$ -0.5 to +6.5 -0.5 to +6.5	V

V_{ESD}	ESD Withstand Voltage (Note 3)	Human Body Model Charged Device Model	2000 1000	V
$I_{LATCHUP}$	Latchup Performance (Note 4)		± 100	mA

V_{OUT}	DC Output Voltage	Active-Mode (High or Low State) Tri-State Mode (Note 1) Power-Down Mode ($V_{CC} = 0 \text{ V}$)	0 0 0	V_{CC} 5.5 5.5	V
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t_r, t_f	Input Rise and Fall Time	$V_{CC} = 3.0 \text{ V to } 3.6 \text{ V}$ $V_{CC} = 4.5 \text{ V to } 5.5 \text{ V}$	0 0	100 20	ns/V
	Input Rise and Fall Time	$V_{CC} = 1.65 \text{ V to } 1.95 \text{ V}$ $V_{CC} = 2.3 \text{ V to } 2.7 \text{ V}$ $V_{CC} = 3.0 \text{ V to } 3.6 \text{ V}$ $V_{CC} = 4.5 \text{ V to } 5.5 \text{ V}$	0 0 0 0	20 20 10 5	



既存データ

V_{IH}	High-Level Input Voltage	1.65	0.75 V_{CC}	0.75 V_{CC}	V
		2.3 to 5.5	0.7 V_{CC}	0.7 V_{CC}	
V_{IL}	Low-Level Input Voltage	1.65	0.25 V_{CC}	0.25 V_{CC}	V
		2.3 to 5.5	0.3 V_{CC}	0.3 V_{CC}	

I_{IN}	Input Leakage Current	$V_{IN} = 5.5 \text{ V or GND}$	0 to 5.5	± 0.1	± 1.0	μA
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V_T+	Positive Input Threshold Voltage	2.3	1.0	1.5	1.8	1.0	1.8	V
		2.7	1.2	1.7	2.0	1.2	2.0	
		3.0	1.3	1.9	2.2	1.3	2.2	
		4.5	1.9	2.7	3.1	1.9	3.1	
		5.5	2.2	3.3	3.6	2.2	3.6	
V_T-	Negative Input Threshold Voltage	2.3	0.4	0.75	1.15	0.4	1.15	V
		2.7	0.5	0.87	1.4	0.5	1.4	
		3.0	0.6	1.0	1.5	0.6	1.5	
		4.5	1.0	1.5	2.0	1.0	2.0	
		5.5	1.2	1.9	2.3	1.2	2.3	

新規

V_{IH}	High-Level Input Voltage	1.65 to 1.95	0.65 V_{CC}	0.65 V_{CC}	V
		2.3 to 5.5	0.70 V_{CC}	0.70 V_{CC}	
V_{IL}	Low-Level Input Voltage	1.65 to 1.95	0.35 V_{CC}	0.35 V_{CC}	V
		2.3 to 5.5	0.30 V_{CC}	0.30 V_{CC}	

I_{IN}	Input Leakage Current	$V_{IN} = 5.5 \text{ V or GND}$	1.65 to 5.5	± 0.1	± 1.0	μA
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V_T+	Positive Input Threshold Voltage	2.3	1.5	1.8	1.8	V
		2.7	1.7	2.0	2.0	
		3.0	1.9	2.2	2.2	
		4.5	2.7	3.1	3.1	
		5.5	3.3	3.6	3.6	
V_T-	Negative Input Threshold Voltage	2.3	1.15	0.4	1.15	V
		2.7	0.5	1.4	0.5	
		3.0	0.6	1.5	0.6	
		4.5	1.0	2.0	1.0	
		5.5	1.2	2.3	1.2	

新規

AC ELECTRICAL CHARACTERISTICS ($t_R = t_F = 3.0 \text{ ns}$)

Symbol	Parameter	Condition	V_{CC} (V)	$T_A = 25^\circ\text{C}$			$-65^\circ\text{C} \leq T_A \leq 125^\circ\text{C}$			Units
				Min	Typ	Max	Min	Typ	Max	
t_{PLH} t_{PLH}	Propagation Delay AN to YN (Figures 3 and 4)	$R_L = 1 \text{ M}\Omega$, $C_L = 15 \text{ pF}$	1.8 $\pm$ 0.15 2.5 $\pm$ 0.2	2.0		12	2.0		13	ns
		$R_L = 1 \text{ M}\Omega$, $C_L = 15 \text{ pF}$	3.3 $\pm$ 0.3	0.8		5.2	0.8		5.5	
		$R_L = 500 \Omega$, $C_L = 50 \text{ pF}$		1.2		5.7	1.2		6.0	
		$R_L = 1 \text{ M}\Omega$, $C_L = 15 \text{ pF}$	5.0 $\pm$ 0.5	0.5		4.5	0.5		4.8	
		$R_L = 500 \Omega$, $C_L = 50 \text{ pF}$		0.8		5.0	0.8		5.3	
t_{OSLH} t_{OSLH}	Output to Output Skew (Note 7)	$R_L = 500 \Omega$, $C_L = 50 \text{ pF}$	3.3 $\pm$ 0.3			1.0			1.0	ns
		$R_L = 500 \Omega$, $C_L = 50 \text{ pF}$	5.0 $\pm$ 0.5			0.8			0.8	
t_{PZH} t_{PZH}	Output Enable Time (Figures 5, 6 and 7)		1.8 $\pm$ 0.15 2.5 $\pm$ 0.2	3.0		14	3.0		15	ns
			3.3 $\pm$ 0.3	1.2		6.2	1.2		6.5	
			5.0 $\pm$ 0.5	0.8		5.5	0.8		5.8	
t_{PHZ} t_{PHZ}	Output Enable Time (Figures 5, 6 and 7)		1.8 $\pm$ 0.15 2.5 $\pm$ 0.2	2.5		12	2.5		13	ns
			3.3 $\pm$ 0.3	0.8		5.7	0.8		6.0	
			5.0 $\pm$ 0.5	0.3		4.7	0.3		5.0	

Symbol	Parameter	Condition	V_{CC} (V)	$T_A = 25^\circ\text{C}$			$-65^\circ\text{C} \leq T_A \leq 125^\circ\text{C}$			Units
				Min	Typ	Max	Min	Typ	Max	
t_{PLH} t_{PLH}	Propagation Delay AN to YN (Figures 3 and 4)	$R_L = 1 \text{ M}\Omega$, $C_L = 15 \text{ pF}$	1.8 $\pm$ 0.15 2.5 $\pm$ 0.2			12			13	ns
		$R_L = 1 \text{ M}\Omega$, $C_L = 15 \text{ pF}$	3.3 $\pm$ 0.3			5.2			5.5	
		$R_L = 500 \Omega$, $C_L = 50 \text{ pF}$				5.7			6.0	
		$R_L = 1 \text{ M}\Omega$, $C_L = 15 \text{ pF}$	5.0 $\pm$ 0.5			4.5			4.8	
		$R_L = 500 \Omega$, $C_L = 50 \text{ pF}$				5.0			5.3	
t_{OSLH} t_{OSLH}	Output to Output Skew (Note 7)	$R_L = 500 \Omega$, $C_L = 50 \text{ pF}$	3.3 $\pm$ 0.3			1.0			1.0	ns
		$R_L = 500 \Omega$, $C_L = 50 \text{ pF}$	5.0 $\pm$ 0.5			0.8			0.8	
t_{PZH} t_{PZH}	Output Enable Time (Figures 5, 6 and 7)		1.8 $\pm$ 0.15 2.5 $\pm$ 0.2			14			15	ns
			3.3 $\pm$ 0.3			6.2			6.5	
			5.0 $\pm$ 0.5			5.5			5.8	
t_{PHZ} t_{PHZ}	Output Enable Time (Figures 5, 6 and 7)		1.8 $\pm$ 0.15 2.5 $\pm$ 0.2			12			13	ns
			3.3 $\pm$ 0.3			5.7			6.0	
			5.0 $\pm$ 0.5			4.7			5.0	

信頼性データの要約:

QV 素子名: NLV37WZ14USG

RMS S44271

パッケージ US8 STARS

テスト	仕様	条件	間隔	結果
HTOL	JESD22-A108	$T_a = 125^\circ\text{C}$, 100 % max rated V_{CC}	1008 hrs	0/252
HTSL	JESD22-A103	$T_a = 150^\circ\text{C}$	1008 hrs	0/258
TC	JESD22-A104	$T_a = -65^\circ\text{C}$ to $+150^\circ\text{C}$	500 cyc	0/252
HAST	JESD22-A110	130°C , 85% RH, 18.8psig, bias	96 hrs	0/324
uHAST	JESD22-A118	130°C , 85% RH, 18.8psig, unbiased	96 hrs	0/252
PC	J-STD-020 JESD-A113	MSL 1 @ 260°C		0/828
RSH	JESD22- B106	$T_a = 265^\circ\text{C}$, 10 sec		0/90
SD	JTSD002	$T_a = 245^\circ\text{C}$, 10 sec		0/45



QV 素子名: NLV37WZ14USG

RMS S43802

パッケージ US8 SBN

テスト	仕様	条件	間隔	結果
HTSL	JESD22-A103	Ta= 150°C	1008 hrs	0/258
TC	JESD22-A104	Ta= -65°C to +150°C	500 cyc	0/252
HAST	JESD22-A110	130°C, 85% RH, 18.8psig, bias	96 hrs	0/324
uHAST	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs	0/252
PC	J-STD-020 JESD-A113	MSL 1 @ 260 °C		0/828
RSH	JESD22- B106	Ta = 265C, 10 sec		0/90
SD	JTSD002	Ta = 245C, 10 sec		0/45

電気的特性の要約:

電気的特性は要求に応じて利用可能です。

影響を受ける部品の一覧:

部品番号	認証車両
NL17SZ74USG	NLV37WZ14USG
NL27WZ00USG	NLV37WZ14USG
NL27WZ02USG	NLV37WZ14USG
NL27WZ08USG	NLV37WZ14USG
NL27WZ125USG	NLV37WZ14USG
NL27WZ126USG	NLV37WZ14USG
NL27WZ32USG	NLV37WZ14USG
NL27WZ86USG	NLV37WZ14USG
NL37WZ04USG	NLV37WZ14USG
NL37WZ06USG	NLV37WZ14USG
NL37WZ07USG	NLV37WZ14USG
NL37WZ14USG	NLV37WZ14USG
NL37WZ16USG	NLV37WZ14USG
NL37WZ17USG	NLV37WZ14USG
NLJ27WZ125USG	NLV37WZ14USG
NLJ37WZ07USG	NLV37WZ14USG
NLJ37WZ14USG	NLV37WZ14USG
NLJ37WZ16USG	NLV37WZ14USG