PCN Number:	20051019002		**PCN Date:**	01/31/06	
Title:	Datasheet Errata for TS5A2053 Device Type				
Customer Contact:	Linda K Miles	**Phone:**	903-868-7638	**Dept:**	Standard Linear Logic
Proposed 1st Ship Date:	N/A		**Estimated Sample Availability Date:**	N/A	
Change Type:	Electrical Specification				

☐	**Assembly Site**	☐	**Assembly Process**	☐	**Assembly Materials**
☐	**Design**	☑	**Electrical Spec**	☐	**Mechanical Spec**
☐	**Test Site**	☐	**Packing/Shipping/Labeling**	☐	**Test Process**
☐	**Wafer Bump Site**	☐	**Wafer Bump Materials**	☐	**Wafer Bump Process**
☐	**Wafer Fab Site**	☐	**Wafer Fab Materials**	☐	**Wafer Fab Process**

PCN Details

Description of Change:

Texas Instruments Standard Linear and Logic (SLL) is modifying datasheet parameters for the TS5A2053 Device Type. There have been no changes to the die or the process that will affect the current electrical performance of this device. Changes affect the following sections and parameters:

1. **Electrical Characteristics for 5-V supply**
   - 1.1. "ON-state resistance match between channels" 25C limit has been removed. This parameter is specified across the full temperature range only.
   - 1.2. "ON-state resistance flatness" 25C limit has been removed. This parameter is specified across the full temperature range only.
   - 1.3. "NO, NC OFF leakage current", "COM OFF leakage current", "NO, NC ON leakage current", and "COM ON leakage current" limits have all been set to +/- 100nA for 25C and +/-200nA for full temp range.
2. **Electrical Characteristics for 3.3V supply**
   - 2.1. "ON-state resistance" 25C limit has been removed. This parameter is specified across the full temperature range only. The full temp limit has been set to 20 ohms.
   - 2.2. "ON-state resistance match between channels" 25C limit has been removed. This parameter is specified across the full temperature range only.
   - 2.3. "ON-state resistance flatness" 25C limit has been removed. This parameter is specified across the full temperature range only.
   - 2.4. "NO, NC OFF leakage current", "COM OFF leakage current", "NO, NC ON leakage current", and "COM ON leakage current" limits have all been set to +/- 100nA for 25C and +/-200nA for full temp range.
3. **Electrical Characteristics for 2.5V supply**
   - 3.1. "ON-state resistance" 25C limit has been removed. This parameter is specified across the full temperature range only. The full temp limit has been set to 40 ohms.
   - 3.2. "ON-state resistance match between channels" 25C limit has been removed. This parameter is specified across the full temperature range only.
   - 3.3. "ON-state resistance flatness" 25C limit has been removed. This parameter is specified across the full temperature range only.
   - 3.4. "NO, NC OFF leakage current", "COM OFF leakage current", "NO, NC ON leakage current", and "COM ON leakage current" limits have all been set to +/- 100nA for 25C and +/-200nA for full temp range.
4. **Electrical Characteristics for 1.8V supply**
   - 4.1. "ON-state resistance" 25C limit has been removed. This parameter is specified across the full temperature range only. The full temp limit has been set to 120 ohms.
   - 4.2. "ON-state resistance match between channels" 25C limit has been removed. This parameter is specified across the full temperature range only.
   - 4.3. "ON-state resistance flatness" 25C limit has been removed. This parameter is specified across the full temperature range only.
   - 4.4. "NO, NC OFF leakage current", "COM OFF leakage current", "NO, NC ON leakage

current", and "COM ON leakage current" limits have all been set to +/- 100nA for 25C and +/-200nA for full temp range.

Current data sheet 5.0V supply

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Electrical Characteristics for 5-V Supply(1)

V_+ = 4.5 V to 5.5 V, T_A = −40°C to 85°C (unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITIONS		T_A	V_+	MIN	TYP	MAX	UNIT
Analog Switch									
Analog signal range	V_{COM}, V_{NO}, V_{NC}					0		V_+	V
ON-state resistance	r_{on}	$0 \le (V_{NO}$ or $V_{NC}) \le V_+$, I_{COM} = −32 mA,	Switch ON, See Figure 13	25°C	4.5 V		7.5	13.8	Ω
				Full				16	
ON-state resistance match between channels	Δr_{on}	V_{NO} or V_{NC} = 3.15 V, I_{COM} = −32 mA,	Switch ON, See Figure 13	25°C	4.5 V		0.8	3	Ω
				Full				4.5	
ON-state resistance flatness	$r_{on(flat)}$	$0 \le (V_{NO}$ or $V_{NC}) \le V_+$, I_{COM} = −32 mA,	Switch ON, See Figure 13	25°C	4.5 V		1.7	2	Ω
				Full				4.5	
NO, NC OFF leakage current	$I_{NO(OFF)}$, $I_{NC(OFF)}$	V_{NO} or V_{NC} = 1 V, V_{COM} = 4.5 V, or V_{NO} or V_{NC} = 4.5 V, V_{COM} = 1 V,	Switch OFF, See Figure 14	25°C	5.5 V	−20	5	20	nA
				Full		−20		20	
COM OFF leakage current	$I_{COM(OFF)}$	V_{COM} = 1 V, V_{NO} or V_{NC} = 4.5 V, or V_{COM} = 4.5 V, V_{NO} or V_{NC} = 1 V,	Switch OFF, See Figure 14	25°C	5.5 V	−10	−1	10	nA
				Full		−10		10	
NO, NC ON leakage current	$I_{NO(ON)}$, $I_{NC(ON)}$	V_{NO} = 1 V, V_{COM} = Open, or V_{NO} = 4.5 V, V_{COM} = Open,	Switch ON, See Figure 15	25°C	5.5 V	−10	5.5	10	nA
				Full		−20		20	
COM ON leakage current	$I_{COM(ON)}$	V_{COM} = 1 V, V_{NO} or V_{NC} = Open, or V_{COM} = 4.5 V, V_{NO} or V_{NC} = Open,	Switch ON, See Figure 15	25°C	5.5 V	−5	−1	5	nA
				Full		−10		10	
Digital Control Inputs (IN, $\overline{EN}$)									
Input logic high	V_{IH}			Full		$V_+ \times 0.7$		5.5	V
Input logic low	V_{IL}			Full		0		$V_+ \times 0.3$	V
Input leakage current	I_{IH}, I_{IL}	V_I = 5.5 V or 0		25°C	5.5 V	−0.1	0.05	0.1	µA
				Full		−1		1	

(1) The algebraic convention, whereby the most negative value is a minimum and the most positive value is a maximum

New data sheet 5.0V supply

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Electrical Characteristics for 5-V Supply(1)

V_+ = 4.5 V to 5.5 V, T_A = −40°C to 85°C (unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITIONS		T_A	V_+	MIN	TYP	MAX	UNIT
Analog Switch									
Analog signal range	V_{COM}, V_{NO}, V_{NC}					0		V_+	V
ON-state resistance	r_{on}	$0 \le (V_{NO}$ or $V_{NC}) \le V_+$, I_{COM} = −32 mA,	Switch ON, See Figure 13	25°C	4.5 V		7.5	13.8	Ω
				Full				16	
ON-state resistance match between channels	Δr_{on}	V_{NO} or V_{NC} = 3.15 V, I_{COM} = −32 mA,	Switch ON, See Figure 13	25°C	4.5 V		0.8		Ω
				Full				4.5	
ON-state resistance flatness	$r_{on(flat)}$	$0 \le (V_{NO}$ or $V_{NC}) \le V_+$, I_{COM} = −32 mA,	Switch ON, See Figure 13	25°C	4.5 V		1.7		Ω
				Full				4.5	
NO, NC OFF leakage current	$I_{NO(OFF)}$, $I_{NC(OFF)}$	V_{NO} or V_{NC} = 1 V, V_{COM} = 4.5 V, or V_{NO} or V_{NC} = 4.5 V, V_{COM} = 1 V,	Switch OFF, See Figure 14	25°C	5.5 V	−100	5	100	nA
				Full		−200		200	
COM OFF leakage current	$I_{COM(OFF)}$	V_{COM} = 1 V, V_{NO} or V_{NC} = 4.5 V, or V_{COM} = 4.5 V, V_{NO} or V_{NC} = 1 V,	Switch OFF, See Figure 14	25°C	5.5 V	−100	−1	100	nA
				Full		−200		200	
NO, NC ON leakage current	$I_{NO(ON)}$, $I_{NC(ON)}$	V_{NO} = 1 V, V_{COM} = Open, or V_{NO} = 4.5 V, V_{COM} = Open,	Switch ON, See Figure 15	25°C	5.5 V	−100	5.5	100	nA
				Full		−200		200	
COM ON leakage current	$I_{COM(ON)}$	V_{COM} = 1 V, V_{NO} or V_{NC} = Open, or V_{COM} = 4.5 V, V_{NO} or V_{NC} = Open,	Switch ON, See Figure 15	25°C	5.5 V	−100	−1	100	nA
				Full		−200		200	
Digital Control Inputs (IN, $\overline{EN}$)									
Input logic high	V_{IH}			Full		$V_+ \times 0.7$		5.5	V
Input logic low	V_{IL}			Full		0		$V_+ \times 0.3$	V
Input leakage current	I_{IH}, I_{IL}	V_I = 5.5 V or 0		25°C	5.5 V	−0.1	0.05	0.1	µA
				Full		−1		1	

(1) The algebraic convention, whereby the most negative value is a minimum and the most positive value is a maximum

Current data sheet 3.3V supply

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Electrical Characteristics for 3.3-V Supply(1)

V_+ = 3 V to 3.6 V, T_A = −40°C to 85°C (unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITIONS		T_A	V_+	MIN	TYP	MAX	UNIT
Analog Switch									
Analog signal range	V_{COM}, V_{NO}, V_{NC}					0		V_+	V
ON-state resistance	r_{on}	0 ≤ (V_{NO} or V_{NC}) ≤ V_+, I_{COM} = −24 mA,	Switch ON, See Figure 13	25°C	3 V		13.2	13.8	Ω
				Full				16	
ON-state resistance match between channels	Δr_{on}	V_{NO} or V_{NC} = 2.1 V, I_{COM} = −24 mA,	Switch ON, See Figure 13	25°C	3 V		1	3	Ω
				Full				5.5	
ON-state resistance flatness	$r_{on(flat)}$	0 ≤ (V_{NO} or V_{NC}) ≤ V_+, I_{COM} = −24 mA,	Switch ON, See Figure 13	25°C	3 V		5.3	7	Ω
				Full				11	
NO, NC OFF leakage current	$I_{NO(OFF)}$, $I_{NC(OFF)}$	V_{NO} or V_{NC} = 1 V, V_{COM} = 3 V, or V_{NO} or V_{NC} = 3 V, V_{COM} = 1 V,	Switch OFF, See Figure 14	25°C	3.6 V	−20	4	20	nA
				Full		−20		20	
COM OFF leakage current	$I_{COM(OFF)}$	V_{COM} = 1 V, V_{NO} or V_{NC} = 3 V, or V_{COM} = 3 V, V_{NO} or V_{NC} = 1 V,	Switch OFF, See Figure 14	25°C	3.6 V	−10	−1	10	nA
				Full		−10		10	
NO, NC ON leakage current	$I_{NO(ON)}$, $I_{NC(ON)}$	V_{NO} or V_{NC} = 1 V, V_{COM} = Open, or V_{NO} or V_{NC} = 3 V, V_{COM} = Open,	Switch ON, See Figure 15	25°C	3.6 V	−10	4.5	10	nA
				Full		−20		20	
COM ON leakage current	$I_{COM(ON)}$	V_{COM} = 1 V, V_{NO} or V_{NC} = Open, or V_{COM} = 3 V, V_{NO} or V_{NC} = Open,	Switch ON, See Figure 15	25°C	3.6 V	−5	−1	5	nA
				Full		−10		10	
Digital Control Inputs (IN, $\overline{EN}$)									
Input logic high	V_{IH}			Full		$V_+ \times 0.7$		5.5	V
Input logic low	V_{IL}			Full		0		$V_+ \times 0.3$	V
Input leakage current	I_{IH}, I_{IL}	V_I = 5.5 V or 0		25°C	3.6 V	−0.1	0.05	0.1	µA
				Full		−1		1	

(1) The algebraic convention, whereby the most negative value is a minimum and the most positive value is a maximum

New data sheet 3.3V supply

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Electrical Characteristics for 3.3-V Supply(1)

V_+ = 3 V to 3.6 V, T_A = −40°C to 85°C (unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITIONS		T_A	V_+	MIN	TYP	MAX	UNIT
Analog Switch									
Analog signal range	V_{COM}, V_{NO}, V_{NC}					0		V_+	V
ON-state resistance	r_{on}	0 ≤ (V_{NO} or V_{NC}) ≤ V_+, I_{COM} = −24 mA,	Switch ON, See Figure 13	25°C	3 V		13.2		Ω
				Full				20	
ON-state resistance match between channels	Δr_{on}	V_{NO} or V_{NC} = 2.1 V, I_{COM} = −24 mA,	Switch ON, See Figure 13	25°C	3 V		1		Ω
				Full				5.5	
ON-state resistance flatness	$r_{on(flat)}$	0 ≤ (V_{NO} or V_{NC}) ≤ V_+, I_{COM} = −24 mA,	Switch ON, See Figure 13	25°C	3 V		5.3		Ω
				Full				11	
NO, NC OFF leakage current	$I_{NO(OFF)}$, $I_{NC(OFF)}$	V_{NO} or V_{NC} = 1 V, V_{COM} = 3 V, or V_{NO} or V_{NC} = 3 V, V_{COM} = 1 V,	Switch OFF, See Figure 14	25°C	3.6 V	−100	4	100	nA
				Full		−200		200	
COM OFF leakage current	$I_{COM(OFF)}$	V_{COM} = 1 V, V_{NO} or V_{NC} = 3 V, or V_{COM} = 3 V, V_{NO} or V_{NC} = 1 V,	Switch OFF, See Figure 14	25°C	3.6 V	−100	−1	100	nA
				Full		−200		200	
NO, NC ON leakage current	$I_{NO(ON)}$, $I_{NC(ON)}$	V_{NO} or V_{NC} = 1 V, V_{COM} = Open, or V_{NO} or V_{NC} = 3 V, V_{COM} = Open,	Switch ON, See Figure 15	25°C	3.6 V	−100	4.5	100	nA
				Full		−200		200	
COM ON leakage current	$I_{COM(ON)}$	V_{COM} = 1 V, V_{NO} or V_{NC} = Open, or V_{COM} = 3 V, V_{NO} or V_{NC} = Open,	Switch ON, See Figure 15	25°C	3.6 V	−100	−1	100	nA
				Full		−200		200	
Digital Control Inputs (IN, $\overline{EN}$)									
Input logic high	V_{IH}			Full		$V_+ \times 0.7$		5.5	V
Input logic low	V_{IL}			Full		0		$V_+ \times 0.3$	V
Input leakage current	I_{IH}, I_{IL}	V_I = 5.5 V or 0		25°C	3.6 V	−0.1	0.05	0.1	µA
				Full		−1		1	

(1) The algebraic convention, whereby the most negative value is a minimum and the most positive value is a maximum

Current data sheet 2.5V supply

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Electrical Characteristics for 2.5-V Supply(1)

V_+ = 2.3 V to 2.7 V, T_A = −40°C to 85°C (unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITIONS		T_A	V_+	MIN	TYP	MAX	UNIT
Analog Switch									
Analog signal range	V_{COM}, V_{NO}, V_{NC}					0		V_+	V
ON-state resistance	r_{on}	$0 \le (V_{NO}$ or $V_{NC}) \le V_+$, I_{COM} = −8 mA,	Switch ON, See Figure 13	25°C	2.3 V		20	28	Ω
				Full				30	
ON-state resistance match between channels	Δr_{on}	V_{NO} or V_{NC} = 1.6 V, I_{COM} = −8 mA,	Switch ON, See Figure 13	25°C	2.3 V		1.1	3	Ω
				Full				6	
ON-state resistance flatness	$r_{on(flat)}$	$0 \le (V_{NO}$ or $V_{NC}) \le V_+$, I_{COM} = −8 mA,	Switch ON, See Figure 13	25°C	2.3 V		15	16	Ω
				Full				20	
NO, NC OFF leakage current	$I_{NO(OFF)}$, $I_{NC(OFF)}$	V_{NO} or V_{NC} = 0.5 V, V_{COM} = 2.2 V, or V_{NO} or V_{NC} = 2.2 V, V_{COM} = 0.5 V,	Switch OFF, See Figure 14	25°C	2.7 V	−20	3.5	20	nA
				Full		−20		20	
COM OFF leakage current	$I_{COM(OFF)}$	V_{COM} = 0.5 V, V_{NO} or V_{NC} = 2.2 V, or V_{COM} = 2.2 V, V_{NO} or V_{NC} = 0.5 V,	Switch OFF, See Figure 14	25°C	2.7 V	−10	−2	10	nA
				Full		−10		10	
NO, NC ON leakage current	$I_{NO(ON)}$, $I_{NC(ON)}$	V_{NO} or V_{NC} = 0.5 V, V_{COM} = Open, or V_{NO} or V_{NC} = 2.2 V, V_{COM} = Open,	Switch ON, See Figure 15	25°C	2.7 V	−10	4	10	nA
				Full		−20		20	
COM ON leakage current	$I_{COM(ON)}$	V_{COM} = 0.5 V, V_{NO} or V_{NC} = Open, or V_{COM} = 2.2 V, V_{NO} or V_{NC} = Open,	Switch ON, See Figure 15	25°C	2.7 V	−5	−2	5	nA
				Full		−10		10	
Digital Control Inputs (IN, $\overline{EN}$)									
Input logic high	V_{IH}			Full		$V_+ \times 0.7$		5.5	V
Input logic low	V_{IL}			Full		0		$V_+ \times 0.3$	V
Input leakage current	I_{IH}, I_{IL}	V_I = 5.5 V or 0		25°C	2.7 V	−0.1	0.05	0.1	µA
				Full		−1		1	

(1) The algebraic convention, whereby the most negative value is a minimum and the most positive value is a maximum

New data sheet 2.5V supply

Electrical Characteristics for 2.5-V Supply(1)

V_+ = 2.3 V to 2.7 V, T_A = −40°C to 85°C (unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITIONS		T_A	V_+	MIN	TYP	MAX	UNIT
Analog Switch									
Analog signal range	V_{COM}, V_{NO}, V_{NC}					0		V_+	V
ON-state resistance	r_{on}	$0 \le (V_{NO}$ or $V_{NC}) \le V_+$, I_{COM} = −8 mA,	Switch ON, See Figure 13	25°C	2.3 V		20		Ω
				Full				40	
ON-state resistance match between channels	Δr_{on}	V_{NO} or V_{NC} = 1.6 V, I_{COM} = −8 mA,	Switch ON, See Figure 13	25°C	2.3 V		1.1		Ω
				Full				6	
ON-state resistance flatness	$r_{on(flat)}$	$0 \le (V_{NO}$ or $V_{NC}) \le V_+$, I_{COM} = −8 mA,	Switch ON, See Figure 13	25°C	2.3 V		15		Ω
				Full				20	
NO, NC OFF leakage current	$I_{NO(OFF)}$, $I_{NC(OFF)}$	V_{NO} or V_{NC} = 0.5 V, V_{COM} = 2.2 V, or V_{NO} or V_{NC} = 2.2 V, V_{COM} = 0.5 V,	Switch OFF, See Figure 14	25°C	2.7 V	−100	3.5	100	nA
				Full		−200		200	
COM OFF leakage current	$I_{COM(OFF)}$	V_{COM} = 0.5 V, V_{NO} or V_{NC} = 2.2 V, or V_{COM} = 2.2 V, V_{NO} or V_{NC} = 0.5 V,	Switch OFF, See Figure 14	25°C	2.7 V	−100	−2	100	nA
				Full		−200		200	
NO, NC ON leakage current	$I_{NO(ON)}$, $I_{NC(ON)}$	V_{NO} or V_{NC} = 0.5 V, V_{COM} = Open, or V_{NO} or V_{NC} = 2.2 V, V_{COM} = Open,	Switch ON, See Figure 15	25°C	2.7 V	−100	4	100	nA
				Full		−200		200	
COM ON leakage current	$I_{COM(ON)}$	V_{COM} = 0.5 V, V_{NO} or V_{NC} = Open, or V_{COM} = 2.2 V, V_{NO} or V_{NC} = Open,	Switch ON, See Figure 15	25°C	2.7 V	−100	−2	100	nA
				Full		−200		200	
Digital Control Inputs (IN, $\overline{EN}$)									
Input logic high	V_{IH}			Full		$V_+ \times 0.7$		5.5	V
Input logic low	V_{IL}			Full		0		$V_+ \times 0.3$	V
Input leakage current	I_{IH}, I_{IL}	V_I = 5.5 V or 0		25°C	2.7 V	−0.1	0.05	0.1	µA
				Full		−1		1	

(1) The algebraic convention, whereby the most negative value is a minimum and the most positive value is a maximum

Current data sheet 1.8V supply

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Electrical Characteristics for 1.8-V Supply(1)

V_+ = 1.65 V to 1.95 V, T_A = −40°C to 85°C (unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITIONS		T_A	V_+	MIN	TYP	MAX	UNIT
Analog Switch									
Analog signal range	V_{COM}, V_{NO}, V_{NC}					0		V_+	V
ON-state resistance	r_{on}	$0 \le (V_{NO}$ or $V_{NC}) \le V_+$, I_{COM} = −4 mA,	Switch ON, See Figure 13	25°C	1.65 V		85	90	Ω
				Full				105	
ON-state resistance match between channels	Δr_{on}	V_{NO} or V_{NC} = 1.15 V, I_{COM} = −4 mA,	Switch ON, See Figure 13	25°C	1.65 V		2	4	Ω
				Full				7.5	
ON-state resistance flatness	$r_{on(flat)}$	$0 \le (V_{NO}$ or $V_{NC}) \le V_+$, I_{COM} = −4 mA,	Switch ON, See Figure 13	25°C	1.65 V		76	85	Ω
				Full				100	
NO, NC OFF leakage current	$I_{NO(OFF)}$, $I_{NC(OFF)}$	V_{NO} or V_{NC} = 0.3 V, V_{COM} = 1.65 V, or V_{NO} or V_{NC} = 1.65 V, V_{COM} = 0.3 V,	Switch OFF, See Figure 14	25°C	1.95 V	−20	3.5	20	µA
				Full		−20		20	
COM OFF leakage current	$I_{COM(OFF)}$	V_{COM} = 0.3 V, V_{NO} = 1.65 V, or V_{COM} = 1.65 V, V_{NO} = 0.3 V,	Switch OFF, See Figure 14	25°C	1.95 V	−10	1	10	µA
				Full		−1		1	
NO, NC ON leakage current	$I_{NO(ON)}$, $I_{NC(ON)}$	V_{NO} or V_{NC} = 0.3 V, V_{COM} = Open, or V_{NO} or V_{NC} = 1.65 V, V_{COM} = Open,	Switch ON, See Figure 15	25°C	1.95 V	−10	4	10	µA
				Full		20		20	
COM ON leakage current	$I_{COM(ON)}$	V_{COM} = 0.3 V, V_{NO} or V_{NC} = Open, or V_{COM} = 1.65 V, V_{NO} or V_{NC} = Open,	Switch ON, See Figure 15	25°C	1.95 V	−5	1	5	µA
				Full		−10		10	
Digital Control Inputs (IN, $\overline{EN}$)									
Input logic high	V_{IH}			Full		$V_+ \times 0.65$		5.5	V
Input logic low	V_{IL}			Full		0		$V_+ \times 0.35$	V
Input leakage current	I_{IH}, I_{IL}	V_I = 5.5 V or 0		25°C	1.95 V	−0.1	0.05	0.1	µA
				Full		−1		1	

(1) The algebraic convention, whereby the most negative value is a minimum and the most positive value is a maximum

New data sheet 1.8V supply

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Electrical Characteristics for 1.8-V Supply(1)

V_+ = 1.65 V to 1.95 V, T_A = −40°C to 85°C (unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITIONS		T_A	V_+	MIN	TYP	MAX	UNIT
Analog Switch									
Analog signal range	V_{COM}, V_{NO}, V_{NC}					0		V_+	V
ON-state resistance	r_{on}	0 ≤ (V_{NO} or V_{NC}) ≤ V_+, I_{COM} = −4 mA,	Switch ON, See Figure 13	25°C	1.65 V		85		Ω
				Full				120	
ON-state resistance match between channels	Δr_{on}	V_{NO} or V_{NC} = 1.15 V, I_{COM} = −4 mA,	Switch ON, See Figure 13	25°C	1.65 V		2		Ω
				Full				7.5	
ON-state resistance flatness	$r_{on(flat)}$	0 ≤ (V_{NO} or V_{NC}) ≤ V_+, I_{COM} = −4 mA,	Switch ON, See Figure 13	25°C	1.65 V		76		Ω
				Full				100	
NO, NC OFF leakage current	$I_{NO(OFF)}$, $I_{NC(OFF)}$	V_{NO} or V_{NC} = 0.3 V, V_{COM} = 1.65 V, or V_{NO} or V_{NC} = 1.65 V, V_{COM} = 0.3 V,	Switch OFF, See Figure 14	25°C	1.95 V	−100	3.5	100	nA
				Full		−200		200	
COM OFF leakage current	$I_{COM(OFF)}$	V_{COM} = 0.3 V, V_{NO} = 1.65 V, or V_{COM} = 1.65 V, V_{NO} = 0.3 V,	Switch OFF, See Figure 14	25°C	1.95 V	−100	1	100	nA
				Full		−200		200	
NO, NC ON leakage current	$I_{NO(ON)}$, $I_{NC(ON)}$	V_{NO} or V_{NC} = 0.3 V, V_{COM} = Open, or V_{NO} or V_{NC} = 1.65 V, V_{COM} = Open,	Switch ON, See Figure 15	25°C	1.95 V	−100	4	100	nA
				Full		−200		200	
COM ON leakage current	$I_{COM(ON)}$	V_{COM} = 0.3 V, V_{NO} or V_{NC} = Open, or V_{COM} = 1.65 V, V_{NO} or V_{NC} = Open,	Switch ON, See Figure 15	25°C	1.95 V	−100	1	100	nA
				Full		−200		200	
Digital Control Inputs (IN, $\overline{EN}$)									
Input logic high	V_{IH}			Full		$V_+ \times 0.65$		5.5	V
Input logic low	V_{IL}			Full		0		$V_+ \times 0.35$	V
Input leakage current	I_{IH}, I_{IL}	V_I = 5.5 V or 0		25°C	1.95 V	−0.1	0.05	0.1	µA
				Full		−1		1	

(1) The algebraic convention, whereby the most negative value is a minimum and the most positive value is a maximum

Device Type	Current Literature #	New Literature #
TS5A2053	SCDS183	SCDS183A

Reason for Change:

Datasheet corrections to multiple parameters in order to more accurately reflect char data. There have been no changes to the die or the process that will affect the current electrical performance of this device.

Product Affected:

TS5A2053DCTR	TS5A2053DCTRE6	TS5A2053DCUR

Anticipate (positive/negative) impact on Fit, Form, Function & Reliability:

Texas Instruments does not anticipate a negative impact on Fit, Form, Function and Reliability.

Product Identification:

There is no change to product identification.

For questions regarding this notice, emails can be sent to the regional contacts shown below or your local Field Sales Representative.	
Location	**E-Mail**
USA	PCNAmericasContact@list.ti.com
Europe	PCNEuropeContact@list.ti.com
Asia Pacific	PCNAsiaContact@list.ti.com
Japan	PCNJapanContact@list.ti.com