

CHANGE NOTIFICATION



Linear Technology Corporation
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(408) 432-1900

May 22, 2014

Dear Sir/Madam:

PCN# 052214

Subject: Notification of Change to LTM2881-3/-5 Datasheet

Please be advised that Linear Technology Corporation has made a minor change to the LTM2881-3/-5 Datasheet to improve manufacturability. A datasheet change to the I_{CC2S} (V_{CC2} Short-Circuit Current) specification removes the temperature range and maximum value. The specification is changed to a typical value of 200mA as shown in the attached redlined electrical characteristics table. There were no changes to the die, and all other functional and parametric specifications are unchanged. Product shipped after July 23, 2014 will be tested to the new limits.

Should you have any further questions, please feel free to contact me at 408-432-1900 ext. 2077, or by email at JASON.HU@LINEAR.COM. If I do not hear from you by July 23, 2014, we will consider this change to be approved by your company.

Sincerely,

Jason Hu
Quality Assurance Engineer

LTM2881

ELECTRICAL CHARACTERISTICS The ● denotes the specifications which apply over the full operating temperature range, otherwise specifications are at $T_A = 25^\circ\text{C}$. LTM2881-3 $V_{CC} = 3.3\text{V}$, LTM2881-5 $V_{CC} = 5.0\text{V}$, $V_L = 3.3\text{V}$, $\text{GND} = \text{GND2} = 0\text{V}$, $\text{ON} = V_L$ unless otherwise noted.

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNITS
Power Supply						
V_{CC}	V_{CC} Supply Voltage	LTM2881-3 LTM2881-5	● ●	3.0 4.5	3.3 5.0	3.6 5.5 V
V_L	V_L Supply Voltage		●	1.62	5.5	V
I_{CCPOFF}	V_{CC} Supply Current in Off Mode	$\text{ON} = 0\text{V}$	●	0	10	μA
I_{CCS}	V_{CC} Supply Current in On Mode	LTM2881-3 $\text{DE} = 0\text{V}$, $\overline{\text{RE}} = V_L$, No Load LTM2881-5 $\text{DE} = 0\text{V}$, $\overline{\text{RE}} = V_L$, No Load LTM2881-5, H/MP-Grade	● ● ●	20 15	25 19 20	mA mA mA
V_{CC2}	Regulated V_{CC2} Output Voltage, Loaded	LTM2881-3 $\text{DE} = 0\text{V}$, $\overline{\text{RE}} = V_L$, $I_{LOAD} = 100\text{mA}$ LTM2881-5 $\text{DE} = 0\text{V}$, $\overline{\text{RE}} = V_L$, $I_{LOAD} = 150\text{mA}$ LTM2881-3, H/MP-Grade, $I_{LOAD} = 90\text{mA}$	● ● ●	4.75 4.75 4.75	5.0 5.0	V V V
$V_{CC2NOLOAD}$	Regulated V_{CC2} Output Voltage, No Load	$\text{DE} = 0\text{V}$, $\overline{\text{RE}} = V_L$, No Load		4.8	5.0	5.35 V
	Efficiency	$I_{CC2} = 100\text{mA}$, LTM2881-5 (Note 2)			62	%
I_{CC2S}	V_{CC2} Short-Circuit Current	$\text{DE} = 0\text{V}$, $\overline{\text{RE}} = V_L$, $V_{CC2} = 0\text{V}$	●	200	250	mA
Driver						
$ V_{OD} $	Differential Driver Output Voltage	$R = \infty$ (Figure 1) $R = 27\Omega$ (RS485) (Figure 1) $R = 50\Omega$ (RS422) (Figure 1)	● ● ●	2.1 2.1	V_{CC2} V_{CC2}	V V V
$\Delta V_{OD} $	Difference in Magnitude of Driver Differential Output Voltage for Complementary Output States	$R = 27\Omega$ or $R = 50\Omega$ (Figure 1)	●		0.2	V
V_{OC}	Driver Common Mode Output Voltage	$R = 27\Omega$ or $R = 50\Omega$ (Figure 1)	●		3	V
$\Delta V_{OC} $	Difference in Magnitude of Driver Common Mode Output Voltage for Complementary Output States	$R = 27\Omega$ or $R = 50\Omega$ (Figure 1)	●		0.2	V
I_{OZD}	Driver Three-State (High Impedance) Output Current on Y and Z	$\text{DE} = 0\text{V}$, (Y or Z) = -7V , $+12\text{V}$ $\text{DE} = 0\text{V}$, (Y or Z) = -7V , $+12\text{V}$, H/MP-Grade	● ●		± 10 ± 50	μA μA
I_{OSD}	Maximum Driver Short-Circuit Current	$-7\text{V} \leq (\text{Y or Z}) \leq 12\text{V}$ (Figure 2)	●	-250	250	mA
Receiver						
R_{IN}	Receiver Input Resistance	$\overline{\text{RE}} = 0\text{V}$ or V_L , $V_{IN} = -7\text{V}$, -3V , 3V , 7V , 12V (Figure 3) $\overline{\text{RE}} = 0\text{V}$ or V_L , $V_{IN} = -7\text{V}$, -3V , 3V , 7V , 12V (Figure 3), H/MP-Grade	● ●	96 48	125 125	k Ω k Ω
R_{TE}	Receiver Termination Resistance Enabled	$\text{TE} = V_L$, $V_{AB} = 2\text{V}$, $V_B = -7\text{V}$, 0V , 10V (Figure 8)	●	108	120	156 Ω
I_{IN}	Receiver Input Current (A, B)	$\text{ON} = 0\text{V}$ $V_{CC2} = 0\text{V}$ or 5V , $V_{IN} = 12\text{V}$ (Figure 3) $\text{ON} = 0\text{V}$ $V_{CC2} = 0\text{V}$ or 5V , $V_{IN} = 12\text{V}$ (Figure 3), H/MP-Grade $\text{ON} = 0\text{V}$ $V_{CC2} = 0\text{V}$ or 5V , $V_{IN} = -7\text{V}$ (Figure 3) $\text{ON} = 0\text{V}$ $V_{CC2} = 0\text{V}$ or 5V , $V_{IN} = -7\text{V}$ (Figure 3), H/MP-Grade	● ● ● ●		125 250 -100 -145	μA μA
V_{TH}	Receiver Differential Input Threshold Voltage (A-B)	$-7\text{V} \leq B \leq 12\text{V}$	●	-0.2	0.2	V
ΔV_{TH}	Receiver Input Failsafe Hysteresis	$B = 0\text{V}$			25	mV
	Receiver Input Failsafe Threshold	$B = 0\text{V}$		-0.2	-0.05	0 V

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