

March 17, 1998

ELECTRICAL CHARACTERISTICS

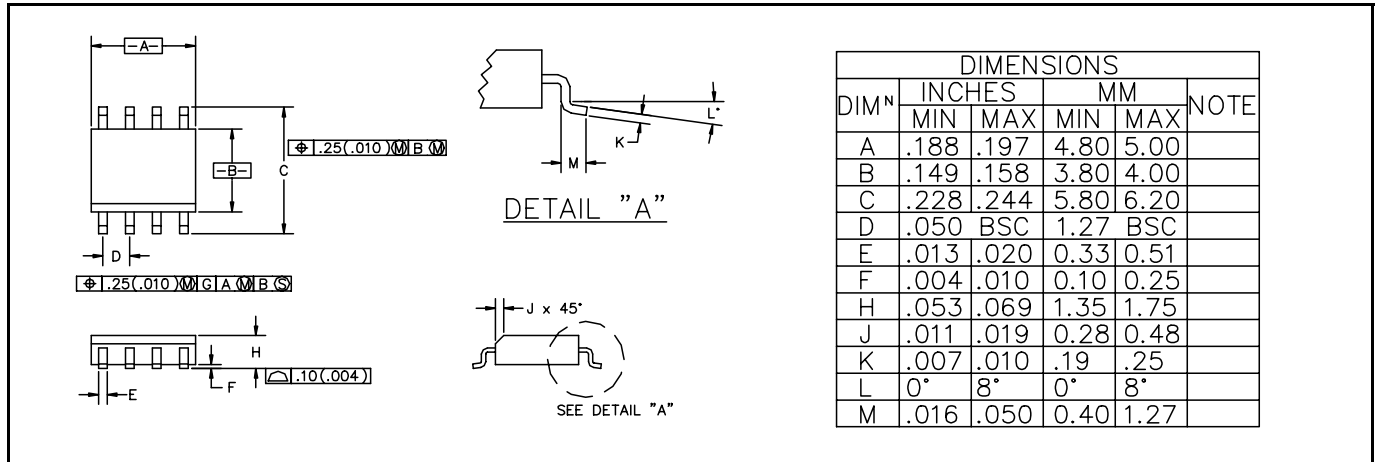
 Unless specified, limits are over operating temperature range ($T_J = T_A$), $V_{IN} = V_{OUT(NOM)} + 1V$, $I_L = 100\mu A$, $C_L = 1\mu F$

Parameter	Symbol	Conditions	Min	Typ	Max	Units
Output Voltage LP2951CM	V_{OUT}	$T_J = 25^\circ C, I_L = 100\mu A$	4.950	5.000	5.050	V
LP2951CM-3.3			3.267	3.300	3.333	
Temp Coefficient ⁽¹⁾	T_C	$0^\circ C \leq T_J \leq 70^\circ C$		20	120	ppm/ $^\circ C$
Line Regulation	$REG_{(LINE)}$	$(V_{O(NOM)} + 1V) \leq V_{IN} \leq 30V$		0.1	0.5	%
Load Regulation	$REG_{(LOAD)}$	$100\mu A \leq I_L \leq 100mA$		0.1	0.4	%
Dropout Voltage	V_D	$I_L = 100\mu A$		80	150	mV
		$I_L = 100mA$		380	600	
Ground Current	I_{GND}	$I_L = 100\mu A$		120	160	μA
		$I_L = 100mA$		8	14	mA
Dropout Ground Current	$I_{GND(D)}$	$V_{IN} = (V_{O(NOM)} - 0.5V), I_L = 100\mu A$		110	250	μA
Current Limit	I_{CL}	$V_{OUT} = 0$		200	250	mA
Reference Voltage	V_{REF}	$V_{REF} \leq V_{OUT} \leq (V_{IN} - 1V), T_J = 25^\circ C,$ $100\mu A \leq I_L \leq 100mA$	1.210	1.235	1.260	V
Feedback Bias Current	I_{FB}			20	60	nA
Error Comparator						
Output High Leakage Current		$V_{OH} = 30V$			2	μA
Output Low Voltage		$V_{IN} = (V_{O(NOM)} - 0.5V), I_{OL} = 400\mu A$		150	400	mV
Threshold Voltage		Upper	25	60		mV
		Lower		75	140	
Hysteresis				15		mV
Shutdown Input						
Input Logic Voltage	V_{SD}	Low			0.6	V
		High	2.0			V
Input Current	I_{SD}	$V_{SHUTDOWN} = 2.4V$			100	μA
		$V_{SHUTDOWN} = 30V$			750	
Regulator Shutdown Output Current	$I_{O(SD)}$	$V_{SHUTDOWN} \geq 2V, V_{IN} \leq 30V,$ $V_{OUT} = 0, \text{Feedback pin to Tap}$			20	μA

NOTE:

(1) Temperature coefficient is defined as the worst case voltage change divided by total temperature range.

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OUTLINE DRAWING SO-8

LAND PATTERN SO-8
